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Space Shuttle Wind Tunnel Testing Program Summary

A. M. Whitnah and E. R. Hillje

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Lyndon B. Johnson Space Center Houston, Texas



National Aeronautics and Space Administration

Scientific and Technical Information Branch



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NOMENCLATURE

Symbols and abbreviations

cf ₄	Mean aerodynamic chord, MAC Freon
g h He K L L	Acceleration due to gravity Altitude Helium Thousand Body length (of Orbiter)
m M	Million Mach number
MAC N ₂	Mean aerodynamic chord, c
q Re sec V	Dynamic pressure Reynolds number, based on Orbiter body length Seconds Velocity
	Viscous parameter
xo	Body axis, longitudinal (Orbiter)
Yo	Body axis, lateral (Orbiter)
Z	Body axis, vertical (Orbiter)
α β φ γ Γ	Angle of attack Angle of sideslip Bank angle Flight-path angle Universal gas constant Sweepback angle

Abbreviations, Acronyms:

A	Aerodynamics - test type designator, or	
	Ames Research Center - test responsibility designator	
AADS	Ascent air data system	
ABPS	Air breathing propulsion system	
ADDB	Aerodynamic Design Data Book	
A.D.S	Air data system (Orbiter)	
AEDC	Arnold Engineering Development Center	
ALT .	Approach and landing test	
AOA	Abort to once around	
ASRM	Abort solid rocket motors	
ATP	Authority to proceed (management milestone)	
C	Carrier - test configuration designator	
CAL	Cornell Aeronautical Laboratory	
CDR	Critical design review (management milestone)	
CG	Center of gravity	
CR .	Contractor report	

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Data Management System (Chrysler Corporation)
DATAMAN
             Design certification review (management milestone)
DCR
             Development flight instrumentation
DFI
ĒΤ
             External tank
             Electrical power subsystem
EPS
             Marshall Space Flight Center - test responsibility designator
FCF
             First captive flight (ferry program)
             First manned captive flight (ferry program)
FMCF
             First manned orbital flight
FMOF
FRL
             Fuselage reference line
             Felt reusable surface insulation (blanket)
FRSI
F.S.
             Fuselage station, or Full Scale
             Heating - test type designator
             High (temperature) reusable surface insulation (tiles)
HRSI
Ι
             Integrated Vehicle - test configuration designator
IV
              Integrated Vehicle
             Langley Research Center - test responsibility designator
L
L.E.
             Leading edge
             Low (temperature) reusable surface insulation (tiles)
LRSI
             Ling-Temco-Vought Corporation
LTV
              Johnson Space Center - test responsibility designator
M
MCR
             Modification change request
              Main engine cut off
MECO __
              National Aeronautics and Space Administration
NASA
               Ames Research Center
 -ARC
               Flight Research Center
 -FRC
 -HO
               Headquarters
               Johnson Space Center
 -JSC
               Langley Research Center
 -LaRC
 -LeRC
               Lewis Research Center
 -MSFC
               Marshall Space Flight Center
              Naval Surface Weapons Center
 NSWC
              Orbiter - test configuration designation
 0
 O/ET
              Orbiter/external tank mated configuration
              Orbital flight test
 OFT
              Outer moldline
 OML
              Orbital maneuvering system
 OMS
              Orbiter Vehicle
 OV.
              Preliminary design review (managment milestone)
 PDR
              Preliminary requirements review (management milestone)
 PRR
              Reaction control system
 RCS
              Rockwell International
 RI
              Return to launch site (abort)
 RTLS
              Solid rocket booster - test configuration designator, or
 S
               Structural dynamics - test type designator
              (Space) Shuttle approach and landing
 SAL -
              Stability and control
 S&C
              (Space) Shuttle carrier aircraft
 SCA
              Separation
 SEP
              (Space) Shuttle orbital flight
 SOF
              Solid rocket booster
 SRB
              Solid rocket motor
 SRM
               (Space) Shuttle requirements review (managment milestone)
 SRR
              Space Shuttle Engineering Coordination Panel - Wind Tunnel Panel
 SSECP-WTP
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SSME	Space Shuttle main engines
SSPO	Space Shuttle Project Office
SSV	Space Shuttle Vehicle
STAR	Scientific and Technical Aerospace Reports
STS	Space Transportation System
T	External tank - test configuration designator
TAMU	Texas A&M University
TBC	The Boeing Company
T.E.	Trailing edge
TPS	Thermal protection system
TVC	Thrust vector control
V/STOL	Vertical/short take off and landing
WL	Waterline
WTO	Rockwell International - Wind Tunnel Operations Group
Δ	Increment (management milestone)

ABSTRACT

A major phase of the Space Shuttle Vehicle (SSV) Development Program has been the acquisition of data through the Space Shuttle Wind Tunnel Testing Program. During the early concept studies it became obvious that the large number of configuration/environment combinations would necessitate an extremely large wind tunnel testing program. To make the most efficient use of available test facilities, and to assist the prime contractor for Orbiter design and Space Shuttle Vehicle integration, a unique management plan was devised for the design and development phase (1972 through 1983).

A brief overview of the Space Shuttle Program is given together with the evolutional development of the Shuttle configuration. A detailed review is provided of the wind tunnel testing rationale and the associated test program management plan and its overall results. Also given is information as to the various facilities and models used within this program. A unique posttest documentation procedure is presented. In conclusion, a summary of the types of tests per disciplines, per facility, and per model are presented together with detailed listing of the posttest documentation which is available through Scientific and Technical Aerospace Report (STAR).

PREFACE

Conceptual studies for a United States Space Transportation System (STS) determined that the large number of configuration/environment combinations would necessitate an extremely large wind tunnel testing program. To efficiently use the available test facilities and to assist the prime contractor for Orbiter design and Space Shuttle Vehicle integration, a unique management plan was devised for the design and development phase (1972 through 1983). This paper presents a detailed review of the wind tunnel testing rationale and the associated test program management plan. Included are tables of the complete wind tunnel program indicating facilities used. Also included are tables of the models, and the overall configuration schedules. The management plan involved facility representatives from the major testing centers. They were briefed regularly on the configuration status and the corresponding test requirements. In addition, the need for an integrated system for processing large blocks of wind tunnel data and for a standardized documentation concept was recognized and incorporated, utilizing automated data handling. Both the management system and the documentation methods resulted in reliable data and an efficient wind tunnel program for the Space Shuttle Vehicle. __

This document should be a guide for future conceptual test planning of wind tunnel programs similar to that for the Space Shuttle. Items addressed are wind tunnel test planning and management, data management and documentation, new supplemental testing techniques, and innovations in model design.

. INTRODUCTION

In late 1960, the National Aeronautics and Space Administration (NASA) explored the feasibility of employing a reusable vehicle for access to low-Earth orbit. Ideally, the desired vehicle would be similar to a conventional aircraft in both design and operation. This would minimize the expense of a single-use launch vehicle. To assess the vehicles'-aerothermodynamic performance, concept feasibility studies in Phase A were conducted. The empirical data was relied on for generalized trade-off studies of the configurations selected. Phase B (definition) would rely on simple scaled models by each competing contractor. These scaled models were tested in the more critical aerothermodynamic areas. They were also supplemented by parallel NASA studies on generic configuration trade-offs. Phase C/D would then take the selected contractor, with an essentially frozen configuration, through the design and development stages.

The early feasibility studies determined that many complex configurations would be required to meet the objectives of a reusable vehicle. These configurations would entail an enormous amount of wind tunnel tests. Regardless of which configuration/operational concept combination was selected, many unique configurations from the viewpoint of ground facility tests and model requirements would result. The launch vehicle, whether completely reusable or only partially reusable, would change configuration with each staging. The entry vehicle would have large center of gravity shifts because of the varied payloads to be carried. It also would be subjected to the largest range of velocity, configuration, and environmental combinations ever experienced by a manned vehicle. In addition, requirements for horizontal low-speed flight tests and a "ferry" concept added several new configurations. All of these many combined shapes would require testing for aerodynamics, aerothermodynamics, structural loads, structural dynamics, and stage separation. Thus, even before the STS concept or the prime contractor was chosen, estimates for the amount of wind tunnel facility testing, exceeded that of any other previous aircraft or space vehicle program. To meet these many varied requirements, a new approach was required to coordinate the large number of tests. Also required was efficient use of the available test facilities and developing economical and timely reporting concepts. This would result in reliable data for the design analysts.

This paper (an extension of reference 1) presents the rationale for configuration testing within the basic disciplines. It also describes the wird tunnel program management approach and the documentation procedure. Included are detailed tabular listing of all of the testing that was performed to define the baseline configurations. Also included is the direct-support testing done by the NASA centers. It should be noted that the scope of the material in this paper is intended to cover the prime contractor SSV wind tunnel test program only. That is, the Phase C/D portion which extended from mid-1972 to late 1983.

2. BACKGROUND

The preliminary investigations of STS concepts, entitled Integral Launch and Recovery Vehicle Studies, commenced in February 1969, by direction of NASA's Office of Manned Space Flight. Within these studies the major aircraft manufacturers were invited to submit their concepts for evaluation. From these Phase A feasibility efforts, it was concluded that the lifting body, or so called "wingless" class vehicle, would not be compatible with efficient cargo packing and the necessary subsystem arrangements. Nor could this configuration provide the subsonic performance requirements that were needed, primarily liftto-drag ratio. However, the proposed winged, two-stage vehicle concept appeared somewhat more promising. It satisfied the overall projected mission The major difficulty of this concept was the design and requirements. development of optimum aerodynamic configurations for the individual Orbiter and booster vehicles. Also required was a configuration for the integrated vehicle system. At this point in the program, there were two Space Shuttle Orbiter configuration concepts being evaluated. One was a straight wing design with a horizontal tail (ref. 2). The other was a delta wing design.

Subsequent to Phase A, funding for a follow-on preliminary design study (Phase B) was issued in July 1970 to the participating contractors. At this time the U.S. Air Force added their particular requirements. The major of these involved the areas of payload capability and crossrange requirements. The primary purpose of Phase B was for the contractors to further refine their proposed configurations including the new mission requirements. They also had to prepare a preliminary estimate of the costs. Because of the increasing complexity and expense of the Space Shuttle Orbiter/booster design studies, the contractors organized into teams of two. One concentrated on the Orbiter Vehicle; the other on the booster system. Shortly after, NASA management realized the large ultimate cost of the completely reusable concept. It decided to indefinitely delay the "flyback" booster in favor of an expendable booster. Additionally, it was decided to reduce the Orbiter size to be compatible with the chosen booster system. These design philosophy changes extended the Phase B effort for an additional year. This contract period was referred to as "Phase B Prime."

Following the Phase B Prime study, another extension was initiated. It reduced the fully reusable Space Shuttle Orbiter size further and concentrated on a two-stage, parallel-burn booster system concept. This booster concept was configured as a pair of recoverable 156-inch diameter solid rocket boosters (SRB), with an external liquid fuel tank (ET). They would feed the rocket engines in the Orbiter. This second extension was referred to as "Phase B Double Prime." The configuration results of this phase are shown in Figure 2.1.

In March 1972, NASA issued a request for formal proposals for the design and development of the Orbiter including systems integration, the ET system, and the SRB system. The Rockwell Rocketdyne Division had already been chosen to develop and produce the Space Shuttle main engines (SSME's), in July 1971. In July 1972, Rockwell International (formerly North American/Rockwell) was selected as the prime contractor for the Phase C/D design, development and production of the Orbiter, and the overall integration of the SSV system. In August 1973, Martin Marietta Corporation was awarded the contract for design, development, test, and production of the liquid-fueled ET. In November 1973, Thiokol Chemical Corporation was awarded the contract for the SRB's.

-(4)

The carrier vehicle concept for ferry and air launch (low-speed flight tests) was originated in late 1973. The original concept of "bolt-on" air-breathing engines had operational limitations with range, increased turnaround time, and recovery from contingency bases. Technical concerns were scar weight to the Orbiter, thermal protection system (TPS) degradation, and possible cargo bay contamination. Studies done by the NASA-Flight Research Center (FRC) as well as other independent studies showed the carrier concept was feasible for both ferry purposes and the approach and landing test (ALT) program. In June 1974, the Boeing 747 was chosen to be the Shuttle carrier aircraft (SCA).

A historical account of the early programs leading up to the SSV concept can be found in reference 3.

3. CONFIGURATION EVOLUTION

Identification of the SSV configurations as they evolved can be confusing because of several levels of configuration designation. The initial designations, related to the program milestones, used the following acronyms:

ATP - Authority to Proceed

PRR - Preliminary Requirements Review

PDR - Preliminary Design Review

CDR - Critical Design Review

On the design engineering level, the prime contractor configuration control drawing designations were used. At times the lines (contour) drawing designations were all that was available because changes were made so rapidly. In addition, SSV designations 1 through 6 were used by both management and engineering. Figure 3.1 shows the approximate time periods for the various designations. Figure 3.2(a) and 3.2(b) are summaries of the major configuration definitions for the Orbiter and Integrated Vehicle (IV), respectively. Figure 3.3(a) through 3.3(e) are three-view drawings of the major Orbiter definitions shown in fig. 3.2(a). Figure 3.4(a) through 3.4(e) are three-view drawings of the major IV definitions shown in fig. 3.2(b). Figure 3.5(a) and 3.5(b) are three-view drawings of the OV-102 and IV for the STS-1. Tables 3.1 through 3.3 give the dimensional parameters for OV-102, the ET and the SRB's, respectively. Table 3.4 presents the associated reference areas and lengths used to normalize the aerodynamic forces and moments.

The ATP Orbiter aerodynamic shape had a 50° sweep delta wing planform sized to provide 150 knots (77.2 m/sec) design touchdown speed with a 40,000-pound (18,100 kilogram) return payload. Elevons were sized to provide trim at hypersonic speeds over an angle of attack range from 20° to 50° with an operational center of gravity (CG) range of 3 percent body length (LB). The cargo bay was 15 feet in diameter (4.57 meters) by 60 feet long (10.2 meters) to accept a wide variety of payloads. The remote manipulator arms were stowed in a dorsal fairing along the top of the payload bay doors. For ferry and entry assist, an air breathing propulsion system (ABPS) was situated in the aft portion of the payload bay. Three main propulsion system rocket engines were located at the base of the aft fuselage and orbital maneuvering systems (OMS). engines were installed in two removable pod modules on the side of the aft fuselage. Reaction control system (RCS) rocket engines were also located in the aft pods and on the forward fuselage. The pilot's eye (cockpit location) was 208 inches (528.3 cm) aft of the nose and had an angular view of 200 up and 24.5° down. The nose radius was 25 inches (63.5 cm) and blended smoothly into the low fineness ratio body. The ATP Integrated Vehicle had the Orbiter attached to the ET "piggy-back" style with the Orbiter nose 80.3 feet (24.48 m) _ aft of the ET nose. The Orbiter fuselage reference line (FRL) is canted down so that the Orbiter is oriented at a -1.2° incidence with respect to the ET centerline. The SRB's are attached to the ET such that the noses of each SRB are 17.5 feet (5.33 m) aft of the ET nose and 3.1 feet (0.94 m) above the ET centerline. The centerlines of the SRB's and the ET are parallel. Two ASRM's (abort SRM's) are mounted at the aft end of the Orbiter body. The ET is

(4)

essentially a cone-cylinder arrangement. It is fitted with a retro SRM package at the tank nose to facilitate ET deorbit. The external shape of the retro SRM is a small hemisphere-cylinder with a nose radius of 20.5 inches (52.07 cm). It has a length of 124 inches or 10.33 feet (3.15 m). The conical nose portion of the tank has a semivortex angle of 30° which blends smoothly into the cylindrical section of the ET. The shoulder blending radius at the cone-cylinder juncture is the same as the cylinder radius, 159 inches (403.9 cm). The ET overall length is 182.0 feet (55.47 m). The nose radius of the SRB's is 13 inches (33.0 cm) and the cone semivortex and angle is 18°. The cylinder diameter is 156 inches (3967.2 cm), and the overall SRB length is 184.8 feet (56.33 m). The fixed nozzles are canted outward 11° in the yaw plane so that the boosters will be thrusting through the approximate center of gravity of the vehicle during the boost phase.

The PRR configuration evolved from the ATP configuration based on MCR 0026 (Master Change Record) in October 1972. The most obvious changes follow. OMS pods were rotated from the aft fuselage side to the aft body shoulder and lengthened slightly. The canopy was moved aft approximately 52 inches (132.1 cm) with an angular view of 7° up and 18° down. The forebody was redesigned to accommodate internal packaging revisions and to improve the transition to the midbody. Wing refinements included an increased thickness ratio, a slight leading-edge droop and minor wing body fillet modifications. The Orbiter incidence was increased to +0.5° to improve the ET separation performance and the IV trim angle. The abort SRM's were deleted. The air breathing propulsic. for landing assist following orbital flights was deleted. The ET nose was changed to an ogive shape to reduce the drag. The SRB's were shortened and moved aft resulting in a slightly longer integrated vehicle. Most of the positioning of the elements (Orbiter and SRB's) relative to the ET, were to improve the element-to-element interference drag. It also alleviated the SRB plume effects on the Orbiter base. The SRB's also had an expanded shroud, had thrust vector control (TVC) added with a reduced precant, and had the aft strakes removed.

Vehicle 2A, also referred to as the "150K Orbiter," (where K indicates 1000 pounds) encompassed the largest changes of all (MCR 0074). Basically the vehicle dry weight and payload down weight were reduced significantly, requiring a complete resizing of the Orbiter. A 450/790 double-delta wing planform was incorporated with reduced glove leading-edge radius and forward sweep to the trailing edge. It included wing twist, camber, and incidence revisions for improved subsonic performance. Improved low-speed performance and a reduced static margin requirement permitted a reduction in wing size to 2,690 square feet (250 square meters) and resulted in rebalancing of the OV to meet stability and control requirements. Nose camber and radius, body cross section, and upward sloping forebody slab sides were selected to improve hypersonic pitch trim and directional stability. By combining them with wing-body blending, entry heating was reduced on the body sides. These changes also simplified the nose structure. The CG travel requirement was reduced from 3 to 2 percent body length. The ferry air breathing engines were moved to a position under the wing (not shown). The SRB's were shortened and moved aft further resulting in a shorter overall vehicle. The SRB yaw gimbal setting was reduced to 0° and the

(4)

nozzle flare angle was reduced. The ET was also shortened and the Orbiter was repositioned on the ET near its original location.

Vehicles 3 and 4 were essentially the same from an aerodynamic configuration viewpoint. Vehicle 3 was initiated with MCR 0200, with seven revisions carrying through the start of Vehicle 4. Early changes shortened the body by 38 inches or 3.17 feet (0.97 m) and smoothed the body nose area while incorporating a smaller nose radius at the same time. The wing glove leading edge was increased to 81° and the incidence was decreased from 3° to $+1./2^{\circ}$. airfoil changes were made, the wing was lowered 4 inches (10.2 cm), and the lower body was refaired. In addition the bodyflap span was reduced. The primary purpose of these changes was to improve the overall aerodynamic and aerotheromdynamic performance. The CG range requirement increased to 2.5 percent body length to allow 1/20 for aerodynamic trim uncertainties with a new payload down of 32,000 lbs (14,515 kg). In addition, the manipulator arm dorsal fairing along the top of the payload bay doors was deleted. The manipulator was stowed inside the payload bay. Later Orbiter changes (mid-1973) included thickening the airfoil 6 inches (15.24 cm) at the elevon hingeline. In early 1974 the ferry air breathing engines were deleted. The SRB's were moved forward relative to the ET as was the Orbiter. The FT was shortened and the retro. package (spike) removed. The result was a slightly shorter overall vehicle length.

The Vehicle 5 Orbiter had the OMS pods shortened and refaired to clear the payload bay doors in early 1974 (MCR 0500). Other lesser external shape changes modified the wing tips, increased the elevon gaps, and deleted the vertical tail drogue chutes. Later (mid-1975) changes added recessed thermal glass in the windshield, observation windows, and hatch windows. Also the covers were removed from the forward RCS ports and from the umbilical doors in the aft body. The ET and SRB length changes as well as the distance of the SRB and Orbiter aft of the ET, were in approximately 4 feet or less. An ascent air data system (AADS) in the shape of a cone was added to the tip of the ET.

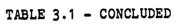
Vehicle 6 had no significant external shape differences from Vehicle 5.

A thorough description of the design logic to optimize the Orbiter aerodynamic configuration can be found in references 4 and 5. Reference 6 discusses the role of the entry aerothermodynamic environment on the Orbiter design, and reference 7 presents some of the challenges to the structural dynamicist.

Component	Parameter	Value
Total vehicle	Reference area, ft ² (m ²)	2690 (249.91)
body +	Planform area, ft ² (m ²)	3952 (367.14)
exposed wing)	Surface wetted area, ft ² (m ²) Length overall, ft (m) Reference length, ft (m) Height, gear up, ft (m) Height, on gear (static), ft (m) Span, ft (m)	11136 (1034.53) 122.0 (37.18) 107.5 (32.76) 46.14 (13.75) 53.76 (16.38) 78.056 (23.79)
Body	Reference length (nose at X = 238 inches), in. (cm)	1290.3 (3277.36)
	Depth, maximum (X ₀ =1280 inches) ft (m) Width, maximum (X ₀ =1528.3 inches)	19.92 (6.07)
	ft (m)	22.0 (6.70)
	Planform area, ft ² (m ²)	1914.4 (177.85)
	Surface wetted area, ft ² (m ²) Base area (includes OMS pods),	5634 (523.39)
	ft ² (m ²) Cargo bay (diameter by length),	436.7 (40.57)
	ft (m).	15 by 60 (4.57 by 18.28)
Wing	Planform area, ft ² (m ²)	2690 (249.91)
(includes body	Span, ft (m)	78.056 (23.79)
carry through)	Aspect ratio	2.265
	Taper ratio Sweep, leading edge, deg	0.20 45
	Sweep, trailing edge, deg Dihedral (at wing trailing	-1 0
	edge), deg Root chord (Yo=0 inches)	3.5
	(theoretical) Length, ft (m) Quarter chord station, X,	57.44 (17.50)
	inches (cm) Tip chord (Yo=468.34 inches)	1008.31 (2561.10)
	Length ft Quarter chord station, X,	11.48 (3.50)
	inches (cm)	1338.80 (3400.55)
	Incidence, deg Airfoil section	+0.5 0012-64 modified
	MAC, c (Y _o =182.13 inches)	
	Length, ft (m) Quarter chord station, X,	39.56 (12.05)
	inches (cm)	1136.83 (2887.54

TABLE 3.1 - CONTINUED

Component	Parameter	Value
Wing, exposed	Planform area (including glove), ft ² (m ²) Surface wetted area, ft ² (m ²) Root chord (Y = 108.0 inches) Length (inc. glove), ft (m) Quarter chord station, X o inches (cm) Incidence, (Y = 199.045 inches), deg Airfoil section (Y = 199.045 inches) Leading edge glove, deg	2012.4 (186.95) 4001.2 (371.71) 80.83 (24.63) 778.5 -0.5
Elevon (one side)	Area, ft ² (m ²) Span, ft Aspect ratio MAC, c length, ft (m) Quarter chord station, X, inches (cm) Distance from elevon centroid to hinge line, inches (cm) Deflection (elevator/aileron), deg Inboard/outboard split line, (Y = 311 inches)	206.57 (19.18) 28.87 (8.79) 4.03 7.46 (2.27) 1409.375 (3579.81) 44.75 (113.665) +20, -35
	Planform area, ft ² (m ²) Span, ft (m) Aspect ratio Taper ratio Sweep, leading edge, deg MAC, c length, ft (m) Elevation, Z, inches (cm) Quarter chord station, X, inches (cm) Root chord length, ft (m) Tip chord length, ft (m) Airfoil section (root - tip) Sweep, trailing edge, deg	413.25 (38.39) 26.31 (8.02) 1.675 0.404 45 16.65 (5.07) 635.5 (1614.17) 1463.35 (3716.90) 22.37 (6.81) 9.04 (2.75) 10° sym 60%-40% double_wedge 26.2



Component	Parameter.	Value .
Rudder and speedbrake	Planform area, ft ² (m ²) Span, ft (m)	97.84 (9.08) 16.55 (5.04)
•	c length, ft (m) Elevation, Z, inches (cm)	6.07 (1.85) 670.41 (1702.84)
	Quarter chord station, X, inches (cm) Deflection, rudder (maximum),	1575.77 (4002.45) 22.8
	deg Deflection, speedbrake, deg Hinge Line, deg	0 to 87.2 34.83
Body Flap	Planform area, ft ² , (m ²)	135.75 (12.61)
	Fuselage station of hinge line, inches (cm) Span (equivalent), inches (cm) Chord, inches (cm)	1532 (3891.28) 241.33 (612.97) 81 (205.74)

(*)

TABLE 3.2 - ET DIMENSIONAL PARAMETERS.

Parameter	Value.	
Length overall (OML), ft (m) Ogive radius (OML), inches (cm) Cylinder diameter (OML), inches (cm) Base area (OML), ft ² (m ²)	154.4 (47.05) 613.0 (1557.02) 333.0 (845.82) 604.8 (56.18)	

TABLE 3.3 - SRB DIMENSIONAL PARAMETERS

Parameter	Value	
Length overall, ft.(m)	149.1 (45.44)	
Nose radius, inches (cm)	13.28 (33.73)	
Cone semi-vertex angle, deg	18.0	
Cylinder outside diameter, inches (cm)	146.0 (370.84)	
Base area, ft ² (m ²)	235.0 (21.83)	
Nozzle deflection angle: Null position, pitch & yaw, deg Gimbal range, pitch & yaw	0	
TVC axes, deg	± 5.0	
Body axes, deg	±8.0	

TABLE 3.4 - AERODYNAMIC FORCE AND MOMENT REFERENCE DIMENSIONS.

Parameter	Reference Value
Longitudinal and lateral/directional coeffic	cients
Wing Area, ft ² (m ²) Wing Span, ft (m)	2690.000 (249.91) 78.057 (23,79)
MAC, c length, ft (m)	39.568 (12.06)
Hinge moment coefficients	
Elevon	
Area, S_e , $ft^2 (m^2)$	210.000 (19.51)
Chord ce, ft (m)	7.55 (2.30)
Bodyflap	
Area, S _{BF} , ft ² (m ²)	135.000 (12.54)
Chord, c _{BF} , ft (m)	6.75 (2.05)
Rudder/speedbrake	
Area, S _r , ft ² (m ²)	100.150 (9.30)
Chord, c, ft (m)	6.10 (1.86)

Note: The aerodynamic moments for the Orbiter were reduced at a point 65 percent aft of the Orbiter nose and on the Orbiter centerline. For the Integrated Vehicle the moments are reduced at a point coincident with the Orbiter nose and on the external tank centerline.

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4. TEST CONDITIONS AND REQUIREMENTS

The nominal mission phases dictate distinct flight conditions to which the SSV is subjected. These phases can be divided into the three major operational areas: launch, separation, and entry. The flight environment of the various configuration combinations is dependent on the vehicle attitude, velocity, and the accompanying flowfield interaction with the configuration. A sketch of the nominal mission phases is shown in fig. 4.1. Trajectory characteristics for a typical ascent are shown in fig. 4.2(a) and for a typical entry in fig. 4.2(b).

In the launch phase the vehicle is positioned vertically on the launch pad (fig. 4.3). Before and during lift-off, the effect of ground winds must be considered. The main engine noise (vibration loads) and pad overpressures experienced at ignition can also be important. As the vehicle ascends, the aerodynamic stability and control characteristics are important. However, they are not critical because of the overpowering thrust of the vectorable main engines and SRB's. At an early point however, the aerodynamic loads become large (in the transonic flight regime) with the additional possibility of empennage buffeting. As the launch speed increases, aerodynamic heating, and, increases. Throughout launch, the total vehicle's individual elements also the engine plumes must be determined. Some of the more important IV aerodynamic considerations are noted in fig. 4.4.

For nominal flight, the two distinct element separation phases are SRB separation near Mach 5.0 and ET separation near orbital insertion. ET separation problems are actually more significant aerodynamically for the abort phase referred to as "return to launch site" (RTLS). Each separation phase must consider the aerodynamic interference, or proximity, effects to avoid element recontact. The aerodynamics, airloads, and aeroheating of the individual SRB and ET elements are required for ET disposal studies and SRB recovery analyses. In addition, SRB recovery involves determination of the characteristics of a suitable parachute system. Fig. 4.5 depicts the separation characteristics. Fig. 4.6 shows the events for SRB recovery.

During the entry phase, the Orbiter will descend from a Mach number near 28 to a landing speed near 200 knots (102.9 m/sec). At the upper level of the Mach regime, aeroheating, and stability and control considerations also involve the RCS interactions. Throughout entry the effectiveness of all of the Orbiter control surfaces (elevons, bodyflap, rudder, and speedbrake) must be determined. This is because the attitude profile changes from a high angle of attack at high Mach numbers (to dissipate the heat and slow the vehicle) to a conventional mairplane-like attitude for landing. The subsonic lift-to-drag ratio must be large enough so that the Orbiter speed and angle of attack are not excessive at landing. In addition, ground effects during landing are important. An additional characteristic of the Orbiter during entry is the large range of CG locations (because of payload placement) that the vehicle's stability and control characteristics must contend with. Some of the more important Orbiter aerodynamic considerations are shown in fig. 4.7.

For the carrier program, several distinct modes of operation were required. First, in the ferry mode, the Orbiter/SCA in the mated configuration would perform the ferry mission up to a range of 2000 nautical miles (3706.2 km).

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Other potential ferry missions would involve the ET or a payload cannister. For the airlaunch, or the ALT mission, the mated configuration would climb to altitude (approximately 30,000 ft. or 9144 m) and launch the Orbiter in a "top-launch" concept. Initial ALT flights would be performed with a tailcone or fairing that covered the Orbiter main engine nozzles and stayed attached to the Orbiter during the free-flight portion. Later ALT flights would be performed without the tailcone. The most complex flight condition to determine for ferry was the definition of the wake caused by the blunt-based Orbiter and the subsequent effect on the 747 vertical tail. For the ALT mission the separation procedures and characteristics were the most difficult to determine. Fig. 4.8 shows the Orbiter/SCA mated configuration with the Orbiter to SCA incidence to be set for either a ferry or launch mission. Fig. 4.9 shows the ALT Orbiter Vehicle (0V101) and some of its special characteristics for the ALT program.

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5. WIND TUNNEL TESTING RATIONALE

Much of the expertise in determining what type of wind tunnel testing that would be required was developed during the early SSV studies (see refs. 8 through 10). In addition, the selected contractor, Rockwell International, had a large amount of experience with previous aircraft test programs. It also had experience with the Apollo test program. Several differences for the SSV program were apparent from the beginning. However, these differences dictated that the SSV wind tunnel program be very thorough and at the same time be highly efficient. Thoroughness was dictated by the fact that STS-1 would be orbital and would carry a crew. There were no plans for using the conventional graduated flight test approach that new aircraft normally use. New ground was being broken in all flight phases and little empirical data were available for the early SSV studies. Efficiency was dictated by both the design and development schedule and by the need to keep costs to a minimum. Each distinct configuration/environment test requirement in each discipline had to be Testing had to be designed to obtain reliable data. To minimize program costs, the major portion of the wind tunnel program would be conducted in NASA facilities. The basic objective of the overall wind tunnel program was to conduct the mainstream testing that would meet the technical requirements of the SSV aerodynamic, aerothermodynamic, airloads, structural dynamics, and separation disciplines. Adhering to this procedure would result in a safe and successful operational SSV. In general, the early testing was done to define basic vehicle characteristics and parametric effects. The latter data was used incrementally to estimate the characteristics of any proposed design modifications. When the configuration definition was "frozen, " for management review purposes, then the new design was tested to verify the estimated data base. This procedure was repeated several times throughout the program, while holding any extensive verification tests to a minimum until the end of the program when the "as built" configurations could be tested. The testing rationale for each of the aforementioned test disciplines is discussed in the following paragraphs as applicable to the major configuration/operational flight phase combinations for the Integrated Vehicle, Orbiter, and ferry configurations.

Integrated Vehicle

The basic aerodynamic force and moment data were needed early. This determined the requirements for both SRB and SSME engine-on additions to the total vehicle stability. Total vehicle stability required that the aerodynamic and thrust, forces and moments be in equilibrium. The aerodynamics would dictate SRB and SSME precant nozzle angle settings and engine gimbal requirements. In addition. because the plume effects have such a strong effect on stability, the early tests included plume simulations. However, in testing with such a complex launch configuration base area there would obviously be sting interference effects. To account for these, engine-off tests were performed. A conventional sting-out of the aft end of the ET model measured force and moment data, elevon and rudder hinge moments, attach structure interface loads, wing moments (bending, torsion, and shear), and effects forward of the base area (fig. 5.1). Similar measurements were made with the Orbiter as the sting-supported element (fig. 5.2) allowing for sting effects to be accounted. Later tests, specifically for incremental model support interference effects, were performed to address all of the sting arrangements used (fig. 5.3). For plume effects,

early tests were run with the conventional aft-sting arrangement (fig. 5.4). Later tests were run using a blade strut, from the lower surface of the ET, to concentrate on measurements in the base region (fig. 5.5). The blade mount provided a relatively "clean" base region for high quality measurement of base effects. Early exploratory testing used analytically-determined solid plume shapes (varying with Mach number, altitude and other key jet simulation parameters) as shown in fig. 5.6.

Compromises had to be made in the testing program when duplication of the actual engine exhaust plumes was planned. It was neither technically nor economically feasible to completely duplicate the exhaust gas from the SRB's and SSME's for each of the SSV launch vehicle tests for the following reasons.

- a. The geometry could not be accurately simulated because of the necessary plumbing required to pass the simulant gases into the model.
- b. Since the base area is the primary area affected by the launch vehicle plumes, a blade support system mounted through the ET is required. This is used rather than a sting support system to properly model the base area. The blade support system will invalidate aerodynamic data only at large serodynamic angles.
- c. Exhaust plume testing is an order of magnitude more expensive and time-consuming than "standard" aerodynamic testing.

The approach used in the SSV test program was to use state-of-the-art techniques for the basic power-off data base. Then generate power effect increments from the limited exhaust plume tests. The exhaust simulant gas used in these teats was high-pressure, unheated air. Using air as the simulant gas was accertable based on the results of a plume technology study program. This separate program was designed to establish a set of simulation parameters. These parameters would correlate wind tunnel derived base pressures, using air as the simulant gas, with the expected results from the prototype vehicle. The resulting simulation parameter, a function of plume shape and gas dynamics characteristics, was applied to the scaled SSV exhaust plume test data. This was done to obtain the base and forebody plume effect increments. The tests covered the transonic and low supersonic region where the plume effects are most significant. Supplemental data from base heating tests were used to fill in the high Mach number data points. Such points as the vacuum chamber test arrangement as shown in fig. 5.7. In this way, many tests served several purposes and generated data in several separate test disciplines. Pressure tests (distributed loads tests) were accomplished in this manner throughout the program. These tests in addition to the extensive detailed testing to determine wing bending, torsion, and shear (as well as elevon-rudder hinge moments) were mostly done without the plume simulations because of the complications of having the instrumentation and the plumbing for the pressurized air all in the same The resulting distributed loads data were integrated to obtain forces and moments which were then compared to the test forces and moments. These two independent sets of data were compared and "balanced" to be within 3 percent of one another.

Static force and moment data on the SRB's and Orbiter/external tank (O/ET) configurations were obtained at Mach 4.5 for nominal staging conditions. The data was taken in two modes to reflect the flowfield environment encountered at

staging. Namely, separation motors were simulated using high pressure air in conjunction with model nozzles scaled to reproduce jet-to-free-stream momentum ratio. Both SRB's were used with the O/ET model in plume-on testing to properly account for cumulative effects on the O/ET (fig. 5.8). Only a single SRB was used in the plume-off regime, the effects of the second SRB on the O/ET being derived analytically (fig. 5.9). Relative motion between the SRB's and the O/ET was produced by an automated captive trajectory system. This system was programed to sequentially vary the SRB relative positions according to a preprogramed run matrix. Artificial boundary-layer trips were not employed over

the tested Reynolds number range of 1.4 to 7.0 x 10⁶ per foot. This was because the presence of intervehicle shocks assured a turbulent boundary layer. A unique data organization strategy, the "hypercube" approach, was developed to facilitate use of the eight required independent variables (jet momentum ratio, 0/ET pitch and yaw angles of attack, SRB relative longitudinal, vertical and lateral displacement, and SRB relative pitch and yaw orientation). The "hypercube" data strategy, as opposed to the classical grid data format, resulted in the reduction of required test data points by two orders of magnitude.

The nominal ET separation procedure is accomplished at an altitude at which aerodynamic forces and moments are negligible as compared to the forces and moments due to the RCS jets (used for the separation maneuver). Therefore no testing was done here. However, during the RTLS abort, the ET must be separated in a significant aerodynamic environment. The interaction of the RCS jets with the free-stream flow is substantial. The testing was accomplished for these flight conditions using the captive trajectory system much in the same manner as the SRB separation technique described above (fig. 5.10).

Postseparation aerodynamic forces and moments, as well as airload pressure distributions were obtained for the ET and for the SRB's at the appropriate test conditions. Both configurations required testing at high angles of attack because of tumbling after separation (ET for RTLS conditions). In addition the SRB recovery parachute system required some conventional testing. These tests were conducted using standard procedures.

Ascent aerothermolynamic heating tests began in the last half of 1973 after the configuration had gone through most of the major changes. The tulk of the testing was done using thermocouples in conjunction with thin-skinned models to measure rapid temperature changes (fig. 5.11). Pressure testing was done for the same test conditions to better define the local flow environment. Later testing concentrated in the base area identifying requirements for the base heat shield at high altitudes (fig. 5.12). These tests measured pressures and heat transfer characteristics with simulated plumes. Generally as time went on, the models had higher fidelity (such as that shown in fig. 5.13). The number of measurements increased concentrating in the critical areas. Supplementary testing with flat plate models duplicated areas that had configuration discontinuities, such as with the TPS tiles shown in fig. 5.14. Also, testing was done using oil-flow techniques to identify flow patterns and regions of high pressure concentrations (fig. 5.15).

Ascent structural dynamics testing centered around aeronoise (or fluctuating pressure) testing in the critical transonic and low supersonic regions of flight. Tests were also performed checking the possibility of flutter

initiation, again during transonic/low supersonic flight, as shown in fig. 5.16. In addition, tests determining the effects of ground winds are shown in fig. 5.17.

In midprogram, subsystem managers of aerodynamics, airloads, heating, and stage separation felt that air data measurements would be required for the ascent phase for postflight analyses. These concerns resulted in an ascent air data system (AADS). Testing was done largely using a 7 percent forebody model (fig. 5.18) with supplementary tests on complete scale-models for SSV element effects. Results of the AADS flight performance can be found in references 11 and 12.

Orbiter Configuration

The configuration for entry vehicle testing was not as complicated, as was the launch vehicle. In general, the same "balancing" procedure for force and moments, and distributed airloads that was used for the launch vehicle data was also used for the entry vehicle data. Some of the many model support arrangements are shown in fig. 5.19. A large scale model, shown in fig. 5.20, tested low speed characteristics with much of the surface discontinuities and outstanding features represented. Additional test areas for the entry configuration included.

- a. Control surface deflections for the elevons, rudder, speedbrake, and bodyflap. Initial testing used "bolt-on" model parts that represented discrete deflection angles, figs. 5.21(a),(b). Later, more sophisticated models were made with internal mechanisms that allowed the control surfaces to be moved and set from outside the tunnel, fig. 5.21.(c). This procedure circumvented facility shut-downs for model changes and made occupancy hours much more productive (ref. 13).
- b. RCS testing using simulated jet exhausts (as shown in fig. 5.22). Use of the RCS is critical during entry. Any adverse effects because of control surface pressure changes had to be identified and this information fed into the stability and control system. Some of the geometric moments produced by the jet engine forces were negated by induced jet effects on aerodynamic surfaces (wing and vertical tail). The effects of the various combinations of the main thrusters, positioned for pitch, yaw, roll moments, as well as for -Z translation (for ET separation) were tested. They concentrated on major aerodynamic degradation areas retesting where required.
- c. Aeroelastic testing was used for effects of wing and vertical tail bending. Simple elastic wing and vertical tail model parts were attached to existing rigid models to determine the effects of the resulting shapes on the basic vehicle aerodynamics (fig. 5.23). These data were used to confirm the analytical predictions.
- d. Ground effects were measured to ensure that control capability was available for landing. And more importantly they were measured to alert the crew to the expected aerodynamic effects during this critical flight phase. Tests were conducted initially with a fixed ground plane and later with a moving ground plane as shown in fig. 5.24. Low speed tests were also conducted to measure landing gear loads (fig. 5.25).

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e. The Orbiter entry ADS was tested using 10 percent forebody models as shown in fig. 5.26. Test Mach numbers covered the flight operational range of the ADS, from Mach 0.20 to 3.5. Supplemental air data was taken during the large scale model tests, fig. 5.20(b). Details of the Orbiter ADS design, calibration and flight results can be found in reference 12.

Initial aerodynamic heating tests were conducted on the entry configuration with the emphasis on defining the overall environment. These tests were much more extensive than the integrated vehicle tests because of the harsher entry heating environment and because of the unique individual-tile TPS used on the Orbiter. The heat sensitive coating (phase change paint) technique was used to save time and money for the early configuration evaluation studies. Phase change coating models (a plastic-like substrate) are inexpensive and can be made more rapidly than the instrumented models (fig. 5.27). Heat transfer is determined by measuring the time required for a point on the surface of a model to reach the melting temperature of the thin coating. An added feature of this technique is that it is also a form of flow visualization. Another inexpensive technique that was used quite extensively was oil-flow photographs. They define streamline directions and local flow separation characteristics (fig. 5.28). Follow-on tests used the thermocouple/thin-skinned model technique or calorimeters to obtain more detailed data (fig. 5.29). Thermocouples were attached to the inner surface of the model at given points. Temperature time histories were taken with the angle of attack, Reynolds number, and Mach number as variables. Lower heating rates were measured with thin film gauges (resistance thermometer slug calorimeters) and the higher rates with thermocouple gauges (coaxial surface thermometers). Tunnel conditions were monitored with a dual probe that measured temperature and shock stagnation pressure (fig. 5.30). These thermocouple tests defined the temperature distributions around the Orbiter. Closely-related pressure tests defined pressure distributions for the same test conditions. Shadowgraph and Schlieren pictures of the flow patterns were useful in defining several necessary parameters, such as shock-standoff distance and boundary-layer flow conditions (fig. 5.31). Flat plate tests with full scale tiles determined the effect of tile gaps and surface irregularities as well as tile orientation (fig. 5.14). In addition, large scale testing was done in other critical areas such as leading-edge surfaces, elevon seal gaps, landing gear doors, and other areas where surface discontinuities would cause local "hot spots."

Structural dynamics testing was important. The validity of early configuration ____ concepts was examined and critical areas defined, especially potential flutter tendencies of the Orbiter aerodynamic surfaces (fig. 5.32). The purpose of these tests was to acquire, early in the design process, experimental data in the transonic flight region to support analytical flutter predictions. Two models were used. One was scaled with the stiffness of the proposed baseline vehicle; a second with a reduced stiffness level. These results, with the aid of various computer programs, established flutter boundaries and substantiated proposed margins. All wing/elevon and fin/rudder models were designed to have ____ variable control surface stiffness. This allowed exploration of potential coupling of the control surface with parent surface modes. These models also evaluated buffet and stall flutter tendencies. A semirigid flutter model was used to do the final evaluation of the Orbiter flutter boundary over the Mach/dynamic pressure range (fig. 5.33). Acoustic tests of the Orbiter surfaces covered by TPS had indicated that failure might be initiated by extreme pressure gradients. Gradients such as those produced by aerodynamic shocks, as well as

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structural vibrations resulting from accustic or turbulent boundary-layer pressures. To evaluate the sensitivity of the TPS to these simultaneous effects, compression, and expansion shock tests were performed (fig. 5.34).

Ferry/ALT Configuration

Much of the feasibility testing for the ferry/ALT launch configurations was performed by the carrier vehicle contractors (Boeing and Lockheed) before the selection of the Boeing 747. Force and moment testing for detailed configuration development was still needed. Also needed was verification of the mated vehicle as well as the separation characteristics. In addition, testing was required to obtain a low drag tailcone for the Orbiter. This tailcone would minimize the buffet disturbance to the carrier aircraft. The force and moment tests were performed in the same facilities that the carrier aircraft contractor had used because of model compatibility and data comparability (fig. 5.35). Separation tests were done using a minimum matrix of conditions in conjunction with a computer graphics program. This program varied each vehicle's control settings (including spoilers, landing gear, etc.) to optimize on a safe separation procedure (fig. 5.36). Several exploratory tests were required to ensure the carrier aircraft vertical tail would be able to sustain any buffeting induced by the tailcone wake (fig. 5.37). In the process of defining an optimum tailcone configuration (low drag, low wake) many sting arrangements were utilized to minimize the model support effects (fig. 5.38).

6. WIND TUNNEL TEST PROGRAM MANAGEMENT

During the Phase A and B development programs, the NASA Johnson Space Center (JSC) and the NASA Marshall Space Flight Center (MSFC) monitored some four major contracts in their efforts to produce a suitable vehicle design to achieve the proposed space transportation mission. Near the end of Phase B, NASA Headquarters assigned JSC responsibility of managing the overall SSV integration task and the Orbiter development. MSFC had responsibility for the ET, the SRB's, and the SSME development. To effectively and efficiently manage the program, JSC established the Space Shuttle Program Office (SSPO) and created project offices representing the Orbiter, the ET, the SRB's, and the SSME. Each project office in turn assigned subsystem hardware and software managers. One of these was the Aerodynamics Subsystem Manager. In addition to responsibility for the development of the Space Shuttle aerodynamic data base, the Aerodynamic Subsystem Manager was also responsible for the organization and implementation of the overall SSV wind tunnel test program.

To assist in the execution of the Space Shuttle wind tunnel test program task, a committee of technical representatives was formed. It was referred to as the Space Shuttle Engineering Coordination Panel-Wind Tunnel Program (SSECP-WTP). Initial membership was requested from each of the NASA centers including NASA Headquarters. Because five major Shuttle disciplines derive their source of data from the wind tunnel testing process (aerodynamics, aerothermodynamics, airloads, structural dynamics, and stage separation), each discipline was represented on the panel by an associated subsystem manager. The SSV development covered a wide range of flight conditions throughout the Mach number range. Furthermore configuration modifications would result from the wind. tunnel data analyses. For these two reasons it was decided to include a representative from each of the major U.S. wind tunnel testing complexes on the committee. These complexes were the NASA Langley (LaRC), Ames (ARC), and Lewis Research Centers (LeRC), and the Air Force Arnold Engineering Development Center (AEDC). The representatives were helpful not only in sharing similar test experiences, but they were also familiar with the capability and daily status of their respective facilities. They would be able to efficiently coordinate those tests scheduled at their facilities.

In September 1972, an organizational meeting of the SSECP-WTP was held at JSC to review with the prime contractor, Rockwell International, their overall estimates of the anticipated test program. Additionally the plans for the first 6 months of this program were reviewed in detail. Also guidelines for monitoring the overall test program were established. As a result the following procedures were adopted.

- a. The wind tunnel coordination panel would meet quarterly until such a time that the panel would no longer serve its original purpose.
- b. At each of these meetings Rockwell would provide a status of the major disciplines regarding what had been learned over the past several periods. Those issues would be addressed in the next segment of the program.

- c. Rockwell would also review their master wind tunnel program regarding each proposed test to cover a 2-year period broken down as follows:
 - 1. In detail, for the upcoming 6 months.
 - 2. In general, for the following 6 months on a monthly basis.
 - 3. A broad estimate for the subsequent 12-month period on a quarterly basis.
- d. Each near-term proposed test, supported with a pretest run schedule, would be reviewed by the panel. The objectives, testing techniques, and facility utilization were to be reviewed.
- e. Having satisfied the panel as to the test objectives, the facility representatives would provide tentative commitments from their facility management to support these panel-approved tests.
- f. Before each test, the proposed run schedule would be required to have the concurrence of the appropriate JSC subsystem manager. The manager would indicate to the appropriate facility representative that the run schedule had been prioritized and minimized. The manager would also indicate whether the current data requirements of the SSV program had been met. Any facility disagreement with the test or run schedule would be negotiated between the JSC representative and the facility representative. Fig. 6.1 shows the flow of this chain of events.
- g. The Rockwell onsite test engineer would have the responsibility for the real-time direction and run scheduling within the scope and objectives of the agreed-upon test. Any JSC inputs/modifications, to the conduct of the test, would be through the Rockwell test engineer.
- h. Any major changes to the scope or objective of an approved test would be coordinated between the appropriate subsystem manager and the Rockwell analysis engineer, before reapproval. This reapproval would then be relayed to the facility representative and to the onsite test engineer.
- i. Periodically, both the SSPO and/or the appropriate project office(s) would be briefed on the status of the test program and the analysis of the results.

During the time that the panel was active, September 1972 to September 1976, the SSECP-WTP met 12 times. At each of these meetings, the format was basically the same. Rockwell presented their proposed test program for review. It also presented comments on whether the data from previous testing were adequate and if any model modifications and/or additional testing were required. Rockwell also presented the overall status of the configuration development emphasizing the gathering of adequate data defining the baseline vehicle characteristics. MSFC presented similar information relative to the ET and SRB development. During the course of these presentations, problem areas, other then the "mainstream" vehicle characteristics, were identified. Action was assigned to one or more of the panel representatives for further analysis and resolution.

Many of the action items required major studies requiring technical specialists and appropriate testing facilities to provide timely data for analysis. As MSFC was primarily responsible for developing the ET and the SRB recovery system, it

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expended a large effort in defining the unsteady flow field of the mated vehicle. It also performed detailed interstage analyses and plume/supportinterference studies. LaRC, with its long experience in aeronautics and large number of available facilities, provided the following major contributions to the SSV program. Included was the "fine-cut" stability and control analyses for This information was used as the primary data source by the contractor for the final configuration analyses. Other LaRC studies included Orbiter center-of-gravity expansion capability, supersonic Orbiter hysteresis characteristics, RCS interaction effects, dynamic stability characteristics (Orbiter, integrated vehicle and ferry configuration), ALT/support-interference effects (base drag), launch vehicle drag reduction, tile roughness effects, and real-gas effects. LaRC heating studies covered boundary-layer transition: surface heating, and flow phenomena techniques (phase change coatings, oil flow, and electron beam); and interference heating. The ARC, although primarily involved in conducting the major segment of the development testing, did provide analytical support in the areas of Orbiter heating, aeroelasticity, static plumes, and aeronoise definitions.

The following paragraphs detail the major discussion items at each of the SSECP-WTP meetings. Reference to configurations should be correlated with the definitions given in the section "Configuration Evolution" or by using fig. 3.1.

SSECP-WTP Meeting No. 1

This first meeting was held at the end of October 1972, just before the configuration changes were finished for the ATP vebicle to form the PRR configuration.

MSTC test requirements for accepted and proposed shuttle tasks. - Seven tests were requested to support SRB entry analyses: four for ET and SRB ascent loads, one for the ET entry, one for lift-off aerodynamics, and one for launch vehicle plume simulation. Rockwell reviewed their required support contribution and concurred with five of the tests. They postponed the decision on the remainder until the next meeting.

Space Shuttle aerodynamic design data base (ADDB). - During the Phase B, B', and B" contractor studies, JSC formulated a document to serve as a single source of data for all aerodynamic-related studies. In addition to the basic vehicle and control surface aerodynamic data, related items such as configuration geometry definition, control surface deflection capability, etc. were included. This document guided Rockwell in producing the Space Shuttle ADDB. As one of the JSC supporting tasks, the data were also to be put on magnetic tape for the user community. Tight control ensured that all studies used this same source of "official" SSPO aerodynamic data from the ADDB's. This would avoid conflicting study conclusions that would occur if different sets of data were to be used (refs. 14 through 39).

<u>Wind tunnel test procedures</u>. - Procedures that were announced at the panel organizational meeting were changed. The pretest meetings were the responsibility of Rockwell and the facility. JSC would intervene only when conflicts arose. Also test data results were to be furnished to both Rockwell and JSC simultaneously.



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Plume testing. - Recent tests indicated that loads testing should include plume effects. Planned tests were revised to accommodate this need. In addition, a study was initiated to define a SRM nozzle shape that would minimize the plume effects on the vehicle aerodynamics.

Control effects tests. - A JSC study was presented that showed how the number of control surface settings (elevon) tested could be reduced and still give reliable results.

<u>Air breathing propulsion system testing</u>. - Because of the recent decision to eliminate the ABPS for entry (to be used for ferry only) these planned tests were switched to a more economical facility.

Reynolds number/ablation effects. - LaRC accepted a task to study the effects of Reynolds number in conjunction with ablation-caused surface roughness and shape. In addition, they would study TPS tile (waffle) effects with Reynolds number variations.

<u>Test goordination</u>. - Review and test revisions were accomplished in the areas of control surface flutter, panel flutter, aeronoise and RCS/flow interaction.

SSECP-WTP Meeting No. 2

This meeting was held in February 1973. The Orbiter configuration 2A, the "light-weight Orbiter," had just undergone preliminary definition. Several months of tests and analyses were required to confirm the configuration revisions. Tests identified by Rockwell for the near term included Orbiter Vehicle 2A preliminary stability and control, drag and ground effect ABPS studies, then Orbiter detailed stability and control. Also, Integrated Vehicle plume effects tests for stability and control were included. Orbiter loads tests were conducted to address design point conditions which were integrated into the structural analysis modal model. Separation tests had just been completed for the PRR configuration so only Orbiter abort separation tests were scheduled. These subjects also were discussed.

Plume testing review. - Plume testing requirements for the nominal ascent phase of flight, including separation and flight at hypersonic speeds, needed to be defined. This is so that the impact on facility hardware requirements could be made.

MSFC support activities. - The MSFC studies included the generation of launch heating environments, ET deorbit motor location effects, and protuberance effects. MSFC was also planning an ascent plume technology program to address both analytical and experimental plume simulation technology as related to the Shuttle. The objective was to provide an economical and efficient means for simulating SSME plume effects during the ascent phase. The program elements included a simulation technique evaluation that would qualify air simulation for known variable Γ gaseous plumes. It also included a Reynolds number (Re) evaluation to determine the quantitative effect of free- stream Re on plume-induced flow separation and a simulation evaluation to qualify air simulation using a hybrid (hot SRB, cold SSME plumes) model.

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<u>LaRC dynamic stability tests.</u> - LaRC initiated a dynamic stability program to complement the one planned by Rockwell. Progress would be coordinated through the SSECP-WTP with JSC responsible for configuration definition.

SSECP-WTI' Meeting No. 3

This meeting was held in May 1973. The short-lived Orbiter Vehicle 3 was about to become Vehicle 4. Rockwell presented results of some of their analytical prediction techniques for the Orbiter. Also presented was the test plan required to develop the Orbiter Vehicle 4 aerodynamics using existing Vehicle 2A and 3 models. Integrated Vehicle testing was planned to obtain parametric data (ET nose shape, Orbiter incidence, SRB location, attach structure detailed shape and Orbiter distance from the ET). Testing also gave Reynolds number effects, plume effects (location of SRE exit plane) and separation proximity aerodynamics. Because of the complicated test models required for air loads (distributed pressures) the model configurations would go directly from Vehicle 2A to 4.

In other actions, Rockwell was requested to plan RCS/flow interaction tests at hypersonic speeds and LaRC was requested to support sonic boom testing coordinated by a team from the ARC, MSFC, and JSC.

SSECP-WTP Meeting No. 4

The fourth meeting of the Wind Tunnel Panel was held in August 1973. Vehicle 4 was fairly well established. An extensive status report was given by Rockwell that reflected the Shuttle Requirements Review (SRR). As of this data 69 tests had been run in 6805 test hours using 17 facilities and 27 models. The estimate for the total program was 316 tests, 26 thousand hours, 31 facilities, and 69 models. The upcoming testing period would concentrate on the Orbiter PDR configuration due for review in February of 1974. Basic issues to be addressed were

- a. Verification of basic stability and control capability.
- b. Establishment of control surface effectiveness (off-nominal conditions and deflected surfaces for ailer on/elevon and rudder/speedbrake combination settings through the complete Mach range).
- c. Base sting interference and main rocket engine nozzle installation effects (wing tip or vertical tail extension stings used in conjunction with base dummy stings).
 - d. Configuration build-up (component on/off) effects.
 - e. Control surface hinge moments.
 - f. Vertical tail panel loads.
 - g. Reynolds number and viscous interaction effects.
 - h. ABPS location/configuration effects (ferry conditions).
- i. Data tolerance level definitions (comparison of model/model, facility/facility, various model scales, etc.).

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For the ascent vehicle the issues to be addressed were the definition of poweron base drag and continued ET nose shape effects. Also addressed were the
protuberance and attach structure effects, booster separation rocket effects at
long distances, and off-nominal relative attitudes. The airloads testing that
was required concerned the issues of base pressures for a flared rudder,
Orbiter/ET attach fitting simulation, additional rudder deflections, chord with
denser pressure tap distribution, pressure taps to measure venting
characteristics, jet exhaust effects on pressures, and pressure distributions on
the ET and SRB's. Other discussion considered the abort testing requirements
where only abort-to-once around (AOA) and RTLS conditions were to be tested,
SRB/ET test requirements, and an addition to the wind tunnel test coordination
procedure (biweekly teleconferences were initiated to allow premeeting test
approval and definition of problem areas).

SSECP-WTP Meeting No. 5

The fifth panel meeting was held in November 1973. The Aerodynamics Subsystem Manager reviewed the separate milestones for the Orbiter Project and the Space Shuttle Program (Integrated Vehicle). Orbiter Vehicle No. 1 (OV-101) would be used in the ALT Program and Orbiter Vehicle No. 2 (OV-102) would be used in the Orbital Flight Test (OFT) program. Each had separate management reviews. In addition, delta PDR's and delta CDR's were set for OV-101 approximately 6 months after the scheduled PDR and CDR. The Aerodynamics Subsystem Manager established an "Aerodynamics PDR" to accomplish two objectives. The first was the documentation of the source and the analysis of the aerodynamic data and methods in the "Aerodynamics Substantiation Report." The second objective of this review would be to establish an aerodynamics verification plan, using flight and wind tunnel data, that would increase the confidence in the design data.

Orbiter aerodynamic issues for Vehicle 4 added since the last panel meeting were the effectiveness of vertical fins (increased yaw stability) and the effect of increasing the wing leading-edge radius on stability and control. Ascent aerodynamics tests continued on separation/plume effects including RTLS separation of slightly higher speeds. Airloads issues were the acquisition of detailed pressure distributions with RCS plume simulation effects, for prelaunch, for asymmetric effects such as attach fittings and the ET external feedline, for ABPS effects, and for powered SRB separation. SRB concerns were Reynolds number effects (chute deployment altitude and attitude), high Mach/high stability (chute altitude); strakes, and sting interference (accuracy of data). The plume technology tests by the MSFC included analysis of $\operatorname{air}/\operatorname{CF}_h$ testing, plans to test at higher chamber pressure ratios, SRB hot gas test activities, and solid body plume testing for Reynolds number effects. Aerothermodynamics testing was being done to address boundary-layer transition effects, specific heat ratio effects, and detailed heating definitions for a ventral fin, the wing leading edge and TPS gaps.

SSECP-WTP Meeting No. 6

The sixth wind tunnel meeting was held in March 1974, directly following the OV=101 PDR in February. The results of the PDR presented by JSC concluded that OV-104 will meet the aerodynamic ground rules and the identified requirements. The Orbiter Vehicle testing requirements for the newly designated Vehicle 5 included viscous interaction effects on hypersonic stability and control. The definition

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of aerodynamic data tolerances was improved. Additional stability and control data was required. Sting interference effects, TPS simulation, and air data sensor (ADS) calibrations were added. Integrated Vehicle requirements covered nominal and RTLS staging (build-up data and rudder/elevon hinge moments). Also covered were power-on base drag definition (cold gas, base pressures. wing/vertical tail bending moments, and hot/cold gas comparisons). effectiveness (hot/cold gas for RTLS) and mated vehicle aerodynamics (second stage, sting effects, SRB nose/skirt parametrics) were included. Airloads test requirements were discussed. Rockwell was requested to combine the objectives of the planned airloads/force test, plume effects test, and the base drag assessment test. A long-term schedule for structural dynamics showed the need for TPS development tests to support the planned TPS PDR in November 1974. Aerothermodynamic test requirements covered the effects of protuberances, penetrations and gaps on heating, and RTLS abort heating (high a's). Plume tests planned included development base convective heating and pressure. tests also included plume/boundary-layer interactions, "creep" heating and pressure, RTLS abort heating and pressure, and launch pad/Integrated Vehicle interaction heating. Entry heating tests were planned for updated overall configuration heating and pressure, wing leading-edge heating, and SSME nozzle heating. SRB planned tests were to obtain updated configuration stability and heating/pressure distributions as well as drogue deployment feasibility data. Similar testing was to be done for the ET. In addition, a test to define SRB sonic boom characteristics was planned.

SSECP-WTP Meeting No. 7

This meeting was held in July 1974. Because of uncertainty regarding the SSV 1975 Fiscal Year budget the panel meeting had been delayed for a month. During this period JSC had requested Rockwell to organize their proposed testing to meet a "minimum requirements" program for the Vehicle 5 configuration. Proposed Orbiter aerodynamics testing addressed the evaluation of recent design changes (elevon gaps, OMS pods, differential elevons, and elevon flapper doors). Also addressed was the determination of viscous interaction effects on hypersonic stability and control. Inboard/outboard split elevon effectiveness, RCS simulation improvement, and testing required to support TPS simulation was also discussed. Integrated Vehicle tests were proposed to obtain basic aerodynamics for Vehicle 5. This included elevon/rudder/bodyflap hinge moments, wing root bending and torsion, and plume effects (on base pressures, nozzle loads, elevon characteristics). Separation testing was planned for nominal conditions at high a's and β 's, and for RTLS conditions with RCS jet simulation. SRB alone tests covered entry stability, nozzle hinge moments, Reynolds number effects, and pressure distributions for both venting studies and load calculations. ET tests would cover protuberance loads and sonic boom characteristics. Airload tests were to be conducted for pressures near the Orbiter nose and main wheel well (thermal blanket survival assessment). Flow visualization and wake mixing data, exhaust plume effects, elevon deflection effects on wing pressures, and element pressures (Orbiter, ET and SRB mated) were also tested. Structural dynamics testing was for aeronoise effects on the TPS (structural panel tests), flutter with TPS (structural panel), and flutter for the wing/elevon-fin rudder components. Aerothermodynamics tests concentrated on TPS tile gaps with pressure gradients. Thin film gauge instrumented Orbiter/ET attach structure for the ascent phase and surface roughness (paint) and canopy/forebody heating rates for entry conditions was also tested. For the carrier program, testing The Boeing Company had been awarded the contract the was about to begin.

previous month. Some preliminary design support tests had been done leading up to carrier ATP. Now the detail design test requirements had to be done in preparation for carrier PDR in November 1974. Near-term testing included mated vehicle stability and control for takeoff. Cruise and landing (including effects of Orbiter incidence, Orbiter position, tailcone shape and carrier vertical tail modifications) were tested. Separation configuration development (Reynolds number effects and separation matrix definition) and tailcone configuration definition were tested as well.

At this stage of the program, the major configuration changes had been made. The bulk of the future tests would be for configuration refinements, data verification, and contingency issues. It was decided therefore, to reduce the quarterly panel meetings to three per year after the next meeting.

SSECP-WTP Meeting No. 8

The eighth meeting of the panel took place in October 1974. Program schedules were presented and discussed in terms of events related to the panel subsystem manager's responsibilities. Fabrication of most of the Orbiter structure for OV-101 was completed and assembly had begun.

Major aerodynamic issues for the Orbiter were the following:

- a. Increased drag caused by the shortened (blunted) OMS pods
- b. Unaccounted wave drag caused by TPS tile steps
- e. Initiation of a test program for the entry ADS probes
- d. Decrease in pitching moment caused by viscous-interaction effects
- e. Corrections for base sting and SSME nozzle effects
- f. Influence of RCS "RT" (product of gas constant and temperature) scaling and Mach effect on entry RCS simulation
- g. Reduced rudder effectiveness caused by air leakage through the rudder hinge line gap.

Integrated Vehicle aerodynamic issues discussed were Vehicle 5 power-on base drag test results (higher drag level than the latest data book). Also discussed were the Vehicle 5 power-off forebody drag (recent tests show higher drag) and eleven deflection schedules for hinge moment actuator load relief. For the carrier program, a requirement to land with the tailcone had been added. Therefore a test series was initiated to address this configuration. SRB testing covered Reynolds number effects, updated configuration stability and control, and nozzle hinge moments. ET tests included Orbiter/ET fairing optimization, Reynolds number effects, dynamic stability verification, and plume simulation effects. Entry heating tests were planned to obtain the effects of forebody boundary-layer transition and surface roughness, surface seals and cavities, leading-edge radius, and TPS gaps. Integrated Vehicle heating tests covered updated configuration heating distributions, protuberance effects, and base convective heating/pressures. Structural dynamics tests were to be done for wing and vertical tail flutter boundary updates.

SSECP-WTP Meeting No. 9

This meeting was held in May 1975. Orbiter aerodynamic concerns were trim capability near Mach 5, loads exceeding the transonic elevon hinge moment limits, Reynolds number effects, ALT airloads, and continued air data probe calibrations. The Integrated Vehicle testing plans were for RTLS separation and airloads with plumes (hinge moments, venting pressures). The carrier aerodynamic issues were strut (Orbiter) effects, launch separation, captive vehicle airloads, and tailcone off buffet alleviation. Orbiter heating tests and analyses addressed the establishment of smoothness criteria, preventing early flow transition, and elevon dynamic seal heating. Ascent heating concerns were Vehicle 5 heating and pressure distributions and plume effects on base heating at high altitudes. Structural dynamics testing was on panel flutter with and without TPS, aeronoise during ascent, and rigid Orbiter tests to predict buffet onset (including canopy effects).

SSECP-WTP Meeting No. 10

The tenth panel meeting was held in October 1975. Orbiter aerodynamics concerns to be addressed included viscous interaction and real-gas effects. Also discussed were effects of new outer mold lines (OML) caused by TPS thickness redefinition, ALT vehicle tailcone data deficiencies, and air data probe (forebody model) calibrations. Integrated Vehicle aerodynamic issues were force and moment element data with an updated elevon deflection schedule. Other issues were RTLS abort separation with force and aft RCS effects, AADS feasibility, airloads update, and effects of protuberances and attach hardware. Entry heating tests involved the definition of boundary-layer transition. For the Integrated Vehicle, heating tests continued on Vehicle 5 heating and pressure distributions, and protuberance effects. Structural dynamics concerns were for Orbiter Nomex felt panel flutter.

SSECP-WTP Meeting No. 11

A review of the remaining test program in this March 1976 meeting indicated that because of the advance approval management procedure that was used, the Wind Tunnel Panel's role was essentially completed. The panel decided to dissolve itself after the next meeting and transfer the management of any future tests to the respective subsystem managers.

The OV-101 vehicle had been assembled and was approaching the Shuttle ALT CDR. The OV-102 vehicle OML definition had been signed off, fabrication had started, and assembly was 4 months off. Orbiter aerodynamic issues concerned

- a. Verification of the OV-102 lines at subsonic and transonic speeds
- b. Nonlinear aerodynamic control surface characteristics (LaRC-supported)
- c. Predictions of aeroelastic effects
- d. Evaluation of the ALT ADS calibrations (side probes and nose boom) and OV-102 ADS test plans
- e. Aerodynamic loads on landing gear (which are gravity operated) struts and doors.

f. Tailcone on data (ground effects, airloads, hinge moment effects, and test support system tares).

Integrated Vehicle studies concentrated on continuation of tests on elevon relief (to maintain both wing root loads and elevon hinge moments within design limits), AADS feasibility, and RTLS separation. Carrier aerodynamic issues were verification of the data base for mated vehicle launch and cruise configuration, take-off and landing configuration, and separation. Structural dynamics tests continued on the effects of local shocks and aeronoise on the TPS. Integrated Vehicle and Orbiter heating tests continued to address localized heating and configuration updates.

SSECP-WTP Meeting No. 12

At this last official meeting of the panel in September 1976, it was requested that each remaining test be identified to the appropriate subsystem manager in detail and in writing. The subsystem managers would then review these test data requirement packages (test description sheets for the remainder of the program and detailed run schedules through July 1977). An assessment of the occupancy hours would be made by the facility representatives. Then a memorandum would be sent from the JSC Director requesting that these tests be conducted. estimated that the current percent of SSV test completion was 83 percent for aerodynamics, 62 percent for heating, and 71 percent for structural dynamics. Test hours estimated for completion were 40,700 with 29,900 having been accomplished, or 73 percent. Projected testing that remained would be primarily in the areas of verification testing and "as-built" configuration testing. purpose of verification testing was to furnish data for the design data uncertainties analysis. The "as-built" tests would address data gaps, configuration updates and discrepancies, and data discrepancies. These latter tests would be in the highest quality facilities available using completely new

Remaining Orbiter aerodynamic testing addressed the entry ADS, refinement of stability and control and hinge moments, aeroelastic effects (wing and vertical tail), hypersonic viscous interaction/real-gas effects, and various off-nominal flight conditions. Integrated Vehicle tests would cover refined plume effects, the AADS calibration, and contingency airloads. Orbiter and Integrated Vehicle heating addressed configuration updates and localized heating regions. Structural dynamics tests were to be conducted on updated configurations for flutter/buffet, panel (TPS) flutter, oscillatory pressure effects, hypersonic bodyflap buzz, and ground winds data verification. Tests were also to continue through 1976 on SRB recovery conditions and for udpated SRB and ET configuration aerodynamics, structural dynamics, and heating.

SSECP-WTP Special Meeting

In November 1977, a special meeting of the panel was held to update the remaining test program through the First Manned Orbital Flight (FMOF). Contingency and postflight verification tests were scheduled and were to be canceled as soon as it was determined they were not necessary.

7. WIND TUNNEL TEST PROGRAM

As previously discussed, obtaining the aerodynamic, aerothermodynamic, and structural characteristics for the design and development of the SSV configurations necessitated the formulation and execution of an extensive wind tunnel testing program. To minimize costs, plans were made to make maximum use of NASA test facilities and to fabricate multipurpose wind tunnel models. The contractor Phase C/D wind tunnel test program, which began in September 1972, was formally completed in September 1983.

In the formal Rockwell proposal, the estimated wind tunnel test program consisted of 18,900 hours for the Orbiter and 7,100 hours for the mated launch vehicle and the elements for a total of 26,000 hours. During the test program, several management decisions required major configuration changes. Changes such as Orbiter sizing, Orbiter/carrier concept, launch vehicle operational concepts, etc. (fig. 3.1 and 3.2 for the major design evolution characteristics). This resulted in a substantial increase over the initially proposed number of test hours. Overall the prime contractor-utilized approximately 46,500 wind tunnel test hours in the Phase C/D time period. 7.1 presents a summary of the test hours per major configuration, for the various disciplines, together with the number of supporting models. projection of the cost for the test program, the facility hours and models are shown with their estimated costs. Fig. 7.1 illustrates the occupancy hours for the various configurations per discipline, in comparison with similar largescale test programs._

In addition to the Rockwell Phase C/D wind tunnel test program, MSFC and LaRC major-supporting test programs during this time amounted to approximately 20,000 hours. The MSFC, having direct responsibility to the SSV program, expended approximately 7,000 hours performing in-house SSV technology tasks. JSC conducted approximately 1,800 hours of tests, primarily in direct support of Orbiter aerodynamics.

Wind tunnel facilities used in the test program were chosen based on the tunnel's capability to simulate the required test conditions. However, the selection was also based on the facilities cost and efficiency. For this reason, nearly 71 percent of the test program was conducted in NASA facilities. Specifically, 41 percent was done at ARC, 17 percent at MSFC, 13 percent at LaRC, and 1 percent at LeRC.

To assist in the test program management and coordination, a test coding system was developed. The tests were divided into groups each representing the particular organization which was directly responsible for that test (i.e. Rockwell, Larc, MSFC, etc.). Each test was given an alpha/numeric identification code. For the Rockwell tests, the first of the two alpha characters indicated whether the tests were for the Orbiter (0), Integrated Vehicle (I), carrier aircraft (C), external tank (T), or solid rocket booster (S) configuration. The second alpha character denoted the area of discipline to be evaluated: aerodynamics (A), heating (H), or structures (S). The numerical characters represented the chronological order of the tests. It should be noted that the airloads and the ascent phase separation aerodynamics are listed under "A". Structures tests are predominately structural dynamics tests (as opposed to airloads tests). Also the heating test program included some pressure

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distribution testing that was done simultaneously (at the identical test conditions) with the heating tests to ensure data analysis compatibility.

For those support tests conducted by the various NASA centers, the first alpha character was changed from the above description and was used in identifying the center as LaRC (L), MSFC (F), ARC (A), and JSC (M), with the remainder of the identification code the same as previously explained.

A summary of the total test program is given in table 7.2 and the detailed lists of tests for the Orbiter, Integrated Vehicle, carrier vehicle, ET and SRB's are contained in appendices A1 through A5, respectively. Each table gives the test number (or ID), the test schedule, the occupancy hours that were estimated and that were charged by the facility (actual "fan-on" hours), the actual number of runs conducted, the model reference designation (see "Configuration Evolution" section) and model ID (Refer to "Wind Tunnel Test Models" section), the facility used (Refer to "Wind Tunnel Facilities" section) and the facility-designated test number, and the DATAMAN document number and status (Refer to "Documentation" section). Not shown in the test program listings is approximately 660 hours representing 12 Orbiter ADS probe-alone tests.

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- FACILITY HOURS AND ESTIMATED COST FOR THE PRIME CONTRACTOR TABLE 7.1.

		AERODYNAMICS	HEATING	STRUCTURAL	TOTAL
ALT/CARRIER	HOURS	3,500 5.3m	11	400 0.6m	3,900 5.9m
ENTRY	HOURS COST	17,000 25.5而	5,400 8.1m	2,500 3.7m̄	24,900 37.3m
ASCENT	HOURS	10,300 15.4丽	6,000 ≡0.9	900 1.4m	17,200 25.8m
FACILITY TOTAL	HOURS	30,800 46.2⊞	11,400 17.1m	3,800 5.7m	46,000 69.0m
MODEL TOTAL	NO. COST	45 12.6™	9.09 E	21 4.9m	100 26.5m
ESTIMATED WIND TUNNEL PROGRAM COST	TOTAL	58.8 1 1	26.1m	10.6m	95.5F

NOTE: M = MILLION DOLLARS

ORIGINAL PAGE EN OF POOR QUALITY

AER	AERODYNAMICS	MICS	- 4 -	HEATING		STI	STRUCTURES	ES	TOTAL	¥
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- PHASE C/D SSV COMPILATION OF THE WIND TUNNEL TESTING TOTAL ACTUAL PROGRAM

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8. WIND TUNNEL TEST FACILITIES

Many facilities were required to simulate the particular flight conditions that would provide the design of the many SSV configurations. These data had to be accumulated over the entire range of flight conditions that would be encountered from launch through entry and then some. The selection of a tunnel, for any particular test was based on the tunnel's capabilities to simulate required flight conditions, principally Mach and Reynolds number. However, selection was also based on the facility, convenience, and operational economy when there were possible alternate choices.

There were three primary types of wind tunnels used.

- a. Continuous flow tunnels. These tunnels permit uninterrupted testing until all required data are obtained on a particular configuration. Models and test conditions of Mach number, Reynolds number, and angle of attack and sideslip are set up and the air (or test medium) is recirculated until run completion.
- b. Intermittent tunnels (blowdown tunnels). These tunnels have an operating time from several seconds to a few minutes. They have storage tanks charged with pressurized air that is suddenly released, and data are taken over a short blowdown time span.
- c. Impulse tunnels. These tunnels are designed for the simulation of high Mach number values. They have a very short in time, in the order of milliseconds. Instrumentation of the models for this type of tunnel must have high response for the instantaneous recording of the necessary data.

The capability of the various facilities to match the combined Reynolds number/Mach number flight conditions is given in fig. 8.1(a) for ascent and fig. 8.1(b) for entry. In the high hypersonic regime (Mach number above 5) the viscous parameter, $\bar{V}_{\infty}^{\bullet}$, was used as the correlation parameter rather than Reynolds number (see fig. 8.2). Facility information for the SSV test program is summarized in table 8.1 grouped by speed category. The facility name, type, test section size, Mach number range, Reynolds number range and typical model scales is given.

The choice of facility for any given test was determined by selecting the one which could approximate flight conditions. Flight conditions were approached through control of the geometric similarity and scale of models (properly instrumented) and tunnel control of

a. Reynolds number, which is the ratio of the test medium's inertia force to the viscous force. The similarity between a model and prototype is realized when the dimensionless Reynolds number for the model equals the Reynolds number for the prototype. In some instances, it was the objective of a particular wind tunnel test to show that the effect of varying the Reynolds number is a negligible factor. Therefore some tests were conducted at several Reynolds number levels.

- b. Mach number, which is the ratio of the relative velocity of the vehicle to the speed of sound in the medium.
- c. Angle of attack and sideslip, which is the attitude of the model in relation to the free-stream velocity vector in the pitch and yaw planes, respectively.
- d. Other parameters such as thrust coefficients, aeroelastic frequencies, separation distances, etc. that had to be simulated for specific tests.

Because of the impossibility of obtaining all of the required data in one facility, it was necessary to use combinations of facilities and models to obtain data over the desired range of flight conditions.

Additionally, there were no tests or combination of tests that could account for all variables such as Reynolds number, Mach number, angle of attack, model size, wind tunnel, or balance choice that could be made in such a manner as to provide all desired data for the determination of aerodynamic characteristics. Therefore, testing was directed to those areas considered most critical to the vehicle's design. With the limited data obtained it was possible to predict, or extrapolate, the aero/thermo/structural characteristics in the untested areas.

The complete phase C/D wind tunnel program is grouped by facility designation and presented in appendix A. The in-house facility test number is given followed by the SSV test designation, test date, hours, runs, model configuration reference and ID, and documentation number.

TABLE 8.1 - LIST OF SOME OF THE MAJOR SUPPORTIVE TEST FACILITIES

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LARC LOW TURBULENCE PRESS. TUNNEL CONTINUOUS 14.5 BY 3.0 FT 0.1 - 0.4 0.6 - 15.0 2.0 LEC V/STOL LEC V/STOL CONTINUOUS 14.5 BY 21.5 FT 0.0 - 0.3 0.0 - 0.5 5.0 TAMY 7- BY 10-FT SUBSONIC TUNNEL CONTINUOUS 7.0 BY 10.0-FT 0.0 - 0.3 0.0 - 1.9 4.0 THAN SONIC TUNNEL CONTINUOUS 11.0 BY 11.0 FT 0.0 - 0.3 0.0 - 1.9 4.0 TRANSONIC TUNNEL CONTINUOUS 11.0 BY 11.0 FT 0.5 - 1.4 1.7 - 9.4 2.0 - 5 THE CHANSONIC TUNNEL CONTINUOUS 11.0 BY 11.0 FT 0.5 - 1.4 0.5 - 8.7 CONTINUOUS 11.0 BY 12.0 FT 0.5 - 1.2 0.6 - 1.2 THE CHANSONIC TUNNEL CONTINUOUS 11.0 BY 12.0 FT 0.5 - 1.4 0.5 - 1.4 1.7 - 9.4 0.6 CAL 8-FT TRANSONIC TUNNEL CONTINUOUS 11.0 BY 12.0 FT 0.5 - 1.2 0.6 - 1.2 CONTINUOUS 11.0 BY 12.0 FT 0.5 - 1.2 0.6 0.0 1.5 CAL 8-FT TRANSONIC TUNNEL CONTINUOUS 12.0 BY 2.0 FT 0.2 - 1.5 0.2 - 6.0 1.5 CAL 8-FT TRANSONIC TUNNEL CONTINUOUS 12.0 BY 12.0 FT 0.2 - 1.5 0.0 - 4.0 1.5 - 2 CAL 8-FT TRANSONIC TUNNEL CONTINUOUS 12.0 BY 12.0 FT 0.2 - 1.5 0.0 - 4.0 1.5 - 2 CAL 8-FT TRANSONIC TUNNEL CONTINUOUS 12.0 BY 12.0 FT 0.2 - 1.5 0.0 - 4.0 1.5 - 2 LARC 8-FT TRANSONIC TUNNEL CONTINUOUS 15.0 BY 16.0 FT 0.2 - 1.5 0.0 - 4.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 15.0 BY 16.0 FT 0.2 - 1.5 0.0 - 4.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 1.5 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 2 LARC 16-FT TRANSONIC TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 2 LARC 16-FT TRANSONIC TUNN	TBC V/STOL TUNNEL	CONTINUOUS	BY 20.0	ı	ı	`
LEC VASTOL. LINE VASTOL. LINE VASTOL. CONTINUOUS 14.5 BY 21.5 FT 0.0 - 0.3 0.0 - 0.5 5.0 RI 7- BY 10-FT SUBSONIC TUNNEL. CONTINUOUS 7.0 BY 10.0-FT 0.0 - 0.3 0.0 - 1.9 4.0 TAMY 7- BY 10-FT SUBSONIC TUNNEL. CONTINUOUS 8.0 BY 12.0-FT 0.0 - 0.3 0.0 - 1.9 4.0 THAN SONIC TUNNEL. CONTINUOUS 11.0 BY 11.0 FT 0.0 - 0.3 0.0 - 1.8 4.0 THAN SONIC TUNNEL. CONTINUOUS 2.0 BY 2.0 FT 0.6 - 1.4 0.5 - 8.7 0.0 - 1.8 ARC 14-FT TRANSONIC TUNNEL. CONTINUOUS 8.0 BY 4.0 FT 0.6 - 1.2 2.8 - 5.2 0.0 - 5.0 CONTINUOUS 8.0 BY 4.0 FT 0.2 - 1.3 0.2 - 6.0 0.6 THAN SONIC TUNNEL. CONTINUOUS 8.0 BY 4.0 FT 0.2 - 1.3 0.2 - 6.0 0.0 0.0 CONTINUOUS 8.0 BY 12.0 FT 0.2 - 1.3 0.2 - 6.0 0.0 0.0 THAN SONIC TUNNEL. CONTINUOUS 8.0 BY 1.0 FT 0.2 - 1.3 0.2 - 6.0 0.0 0.0 LARC 8-FT TRANSONIC TUNNEL. CONTINUOUS 8.0 BY 1.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 0.0 LARC 8-FT TRANSONIC TUNNEL. CONTINUOUS 8.0 BY 1.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 0.0 LARC 8-FT TRANSONIC TUNNEL. CONTINUOUS 1.0 BY 1.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 0.0 LARC 16-FT TRANSONIC TUNNEL. CONTINUOUS 1.0 BY 1.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 LARC 16-FT TRANSONIC TUNNEL. CONTINUOUS 1.0 BY 1.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 LARC 16-FT TRANSONIC TUNNEL. CONTINUOUS 1.0 BY 1.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 LARC 16-FT TRANSONIC TUNNEL. CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 LARC 16-FT TRANSONIC TUNNEL. CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 LARC 16-FT TRANSONIC TUNNEL. CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 LARC 16-FT TRANSONIC TUNNEL. CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 LARC 16-FT TRANSONIC TUNNEL. CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 0.1 - 6.0 0.0 LARC 16-FT TRANSONIC TUNNEL. LARC 16-	LARC LOW TURBULENCE PRESS. TUNNEL	CONTINUOUS	BY 3.0	1	1	2.0
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TAMY 7- BY 10-FT LOW SPEED TUNNEL CONTINUOUS 7.0 BY 10.0-FT 0.0 - 0.3 0.0 - 2.0 2.0 4.0 TAMY 7- BY 10-FT SUBSONIC TUNNEL CONTINUOUS 8.0 BY 12.0-FT 0.0 - 0.3 0.0 - 1.9 4.0 TRANSONIC ===================================	LTV 15- BY 20-FT SUBSONIC TUNNEL	CONTINUOUS	BY 20.0	0	ı	5.0
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TUNNEL CONTINUOUS 7.1 BY 7.1 FT 0.2 - 1.3 0.1 - 6.0 1.5 - C TUNNEL CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.6 0.0 - 9.7 2.0 - CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 1.2 - 3.7 1.5 - INTERMIT 4.0 BY 4.0 FT 0.2 - 5.0 2.0 - 38.0 1.5		CONTINUOUS	BY 8.0	1	- 7	5
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CONTINUOUS 16.0 BY 16.0 FT 0.2 - 1.3 1.2 - 3.7 1.5 - INTERMIT 4.0 BY 4.0 FT 0.2 - 5.0 2.0 - 38.0 1.5	TABLE 10-FI INANSONIC DINAFLE IUNNEL	CONTINUO	BY 16.0	1	0	ı
INTERMIT 4.0 BY 4.0 FT 0.2 - 5.0 2.0 - 38.0	LARC 10-FI INANSONIC TUNNEL	CONTENBOUS	BY 16.0	ī	m I	. 1
	LIV HIGH SPEED WIND LUNNEL	INTERMIT	.0 BY 4.	ı	i W	1.5

NAME	TYPE	TEST	MACH	REYNOLD'S NUMBER	MODEL SCALE
				T.I/Q	RANGE
				•	
- (
7-FT	CONTINUOUS				
ARC 9- BY 7-FT SUPERSONIC TUNNEL	CONTINUOUS	by 7.0	2.4 - 3.5	0.5 = 5.0	2
ARC D- BY 6-FT SUPERSONIC TUNNEL	CONTINUOUS	0. / va	1.5 - 2.6	0.8 - 6.5	2.0 I U.O
ASSIGNATION AND THE PROPERTY OF THE PROPERTY O	CONTINUE	0.0	0.6 - 2.2	0.5 - 5.0	n I
AEDC 16-FT SUPERSONIC TUNNEL	CONTINUOUS	16 0 BV 16 0 BM	1.5 - 6.0	ı	0.1
FEC 10 DY 10 THE TOWNERS	CONTINUOUS	- :	α. Ι	0.2 - 2.5	1.0 1 0.0
RI 7- BY 7-FT TPICONIC TUNNEL	CONTINUOUS	0.0	1.0.0	1	1.0 - 2.0
MSFC 14-INCH SHIPERSONTE THINKEL	INTERMIT	BY 7.0	1 I	ı m i	. 1
TANNET TOWNER	INTERMIT		0.6 - 4.5	2.0 - 17.0	ı
		-		- !	† *•0
HYPERSONIC				·	
11 11 11 11 11 11 11 11 11 11 11 11 11			-		
ARC 3.5-FT HYPERSONIC THANK					
AEDC TUNNEL "B"	LIVIERMIT		5 & 7.5	0 3 - 4 2	•
AEDC TUNNEL "C"	COUNTINGS		6 & 8.0	יא וו וא וויינים וויינ	1.0 - 1.75
AEDC TUNNEL "D"	CONTINUOUS	SO-INCH DIA.	10 & 12		1.0 - 2.0
AEDC TUNNEL "F"	TWEEDVER	1.0 BY 1.0 FT	1.5 - 5	,	
CAL 8-FT HYPERSONIC TUNNEL	T.TWITT.I.	25-INCH DIA.		1	1.75.0
NSWC TURNEL "#9"	SHUCK	72-INCH DIA.	. 9	ı	1.0 - 1.75
LARC 20-INCH MACH & THINNES	SHOCK	5-FT DIA.			1.0.5 - '24
LARC VARIABLE DENGITY WINNE	INTERMIT	20 BY 20 INCH	- 42	! †!	2.04
LARC CONT. FI.OW HYDERSONIC WINNER	INTERMIT	18-INCH DIA.	2 6	- · ·	0.4 - 1.0
LARC 22-TNCH HET THE WINNER	INTERMIT	31 BY 31 INCH DIA.	10 11 12	0.1 = 12.0	0.6.5 - 8.0
LARC HYPERSONIC NITHOGEN THE	INTERMIT	•	18 - 22	ກະດ ເຂົ້າ ເຂົ້າ	0.6 - 1.0
LARC 20-INCH FREDN THINKE	INTERMIT	19-INCH DIA.	19 = 22	0.7 - 11.3	†*0
LARC 4-FT HYPERSONTC TIMES	INTERMIT	20-INCH DIA	<u></u>	0.2 - 1.3	9.0 - 4.0
THINKS TO THE TOWNER.	Intermit	48-INCH DIA.	8 - 18	0.7 - 0.0	9.0 - 4.0
		*	•	0.1	₹. 0

9. WIND TUNNEL TEST MODELS

Based on the range of flight regimes that were to be evaluated in developing the design of the SSV, a total of over 100 models were eventually required. The model scales range from 0.4 to 36 percent of the full-scale configuration. Exceptions to these scales were the full scale testing of specialized components such as control panels, TPS tile with gaps, etc. Model size was determined by the required testing parameters and the effective tunnel size for attaining flight simulation with minimum tunnel interference. The models were geometrically scaled and manufactured to extremely close tolerances to obtain accurate data. Later models incorporated finer details of external protuberances, surface roughness and indentations, as shown graphically in fig. 9.1.

Force models, which measure the three forces and three moments that define the overall performance and stability of the vehicle, were the primary source for obtaining the aerodynamics of the SSV configurations. In the early tests when basic force and moment testing was being done in the low speed facilities, wooden models were used. Soon after, for testing in the high speed/pressurized facilities, the models were made of aluminum and/or stainless steel. Ultimately, for hypersonic facilities, the models were constructed of heat-treated steel.

Heat transfer models were used to establish the flow field and the temperature distribution about the vehicle. The models were either made of a plastic-like material or they were stainless steel models. The former type models were used to define the flow patterns using oil-flow photographs. The stainless steel models were fitted with thermocouples (and/or calorimeters) to define the temperature distribution and stagnation heating for a range of trajectory conditions.

Pressure models were used to obtain detailed surface pressure-distributions to assist in the airloads analysis and to design the various structural components of the SSV configurations. Pressure models were basically the same as the force models (and in some cases identical models). They were fabricated from aluminum and/or steel. The major differences, however, were the multitude of pressure ports located over the surface of the model and the required plumbing located in the interior of the model to measure all the pressures.

Aeroelastic models were used to measure the torsional, shear, and bending characteristics of a particular component. The elastic models were force models with the component to be evaluated (e.g. the vertical tail or wing) being replaced with an elastic component.

Flutter models were used to evaluate the dynamic characteristics of a particular component. Flutter models were usually made of balsa wood with appropriate stiffness. The flutter models are normally tested to destruction.

A summary of various models used is shown in table 9.1 with definition of the model identification (ID), configuration represented, major test discipline, scale, type measurements, and general comments.

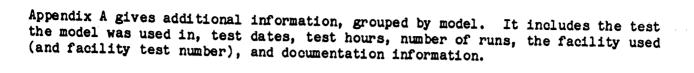


TABLE 9.1 - SUMMARY OF THE SPACE SHUTTLE WIND TUNNEL MODELS

MODEL	PRINCIPLE DISCIPLINE	MODEL SCALE	BASIC	GENERAL
1-0TS	AERODYNAMICS	0.004	FORCE & MOMENTS	MODIFIED PRE-ATP STABILITY'& CONTROL MODEL
2-0	AERODYNAMICS	0.045	FORCE & MOMENTS	PRELIMINARY SUBSONIC STABILITY & CONTROL MODEL
3-01	THERMODYNAMICS	900.0	PAINT	HEAT TRANSFER DISTRIBUTION MODEL
4-0T	THERMODYNAMICS	0.014	THERMOCOUPLES	THIN-SKIN ORBITER FOREBODY MODEL (CANOPY)
5-0T	THERMODYNAMICS	0.015	THERMOCOUPLES	THIN SKIN ORBITER FOREBODY MODEL (CANOPY)
6-0TS	AERODYNAMICS	0.015	FORCE & MOMENTS	DEVELOPMENT/STABILITY & CONTROL MODEL
7-015	AERODYNAMICS	0.019	PRESSURES: JET EFFECTS	COLD-JET PLUME SIMULATION ASCENT MODEL
0-8 42	STRUCT. DYNAMICS	0.046	AEROELASTIC: ORB/CARRIER	RIGID ORB/SCA CONFIG. WITH FLEX. 747 VERT. TAIL
S10-6	AERODYNAMICS	0.0075	FORCE/PRESS.:SEPARATION	STABILITY & CONTROL SEPARATION MODEL
10-01S	AERODYNAMICS	0.01925	FORCE GROUND WINDS	LAUNCH/LAUNCH PAD SIMULATION MODEL
11-075	STRUCT, DYNAMICS	0.04	PRESSURES	AERO NOISE MODEL
12-0	CANCELLED, NOT BUILT	ıLT		
13-0TS "F"	AERODYNAMICS	0.004	FORCE/PRESSURE	STABILITY & CONTOL MODEL
13-0TS "p"	AERODYNAMICS	0.004	PRESSURES	PRESSURE MODEL
14-075	AERODYNAMICS	0.019	FORCE/PRESS.: JET EFFECTS	FORCE/PRESS.: JET EFFECTS COLD-JET PLUME SIMULATION ASCENT MODEL
15-0	THERMODYNAMICS	1.000	THERMOCOUPLES:HRSI TILES	THERMOCOUPLES:HRSI TILES FLAT PLATE: THIN SKIN TPS & PROTUBERANCES
16-0	AERODYNAMICS	0.0405	FORCE & MOMENTS	DEVELOPMENT SUBSONIC STABILITY & CONTOL MODEL
17-0TS	AERODYNAMICS	0.030	PRESSURE/FORCE	AIRLOADS MODEL
18-0	AERODYNAMICS	0.015	FORCE & MOMENTS	STABILITY & CONTROL MODEL

HOT-JET PLUME SIMULATION ASCENT MODEL	RCS (VARIABLE NOZZLES) SIMULATION MODEL	THIN SKIN TEMPERATURE MODEL	PARTIAL WING/ELEVON MODEL	PARTIAL VERTICAL/RUDDER MODEL	HOT-JET PLUME ASCENT AFTERBODY MODEL	PRESSURE DISTRIBUTION MODEL	STABILITY & CONTROL / RCS MODEL		HEAT TRANSFER DISTRIBUTION MODEL	WING REFLECTION PLANE FLUTTER MODEL	HEAT TRANSFER DISTRIBUTION MODEL	STABILITY & CONTROL MODEL	HEAT TRANSFER DISTRIBUTION MODEL	STABILITY & CONTROL MODEL	FLAT PLATE: SHOCK GENERATOR MODEL	RCS VENTING/PLUME MODEL	HEAT TRANSFER DISTRIBUTION MODEL	HEAT TRANSFER DISTRIBUTION MODEL	VERIFY (SUPERSONIC) S&C/AIRLOADS MODEL	TPS TILE / FLUTTER PANELS	HEAT TRANSFER DISTRIBUTION MODEL
PRESSURE: JET EFFECTS	PAINT: JET EFFECTS	THERMOCOUPLES	WING/ELEVON FLUTTER	VERT./RUDDER FLUTTER	BASE TRANSDUCERS	PRESSURES	FORCE: RCS EFFECTS		CALORIMETERS	STRAIN GAGES: LOADS	PAINT	FORCE & MOMENTS	PAINT	FORCE & MOMENTS	THERMOCOUPLES	PRESSURES	THIN FILM GAGES	PAINT	FORCE & MOMENTS/PRESSURES	PANEL FLUTTER	THERMOCOUPLES
0.0225 	0.0175	0.0175	S 0.02	5 0.025	0.04	0.01	0.015	3UILT	0.0175	0.0125	0.00593	0.01	0.00593	0.004	0.182	0.015	0.01	0.0058	0.05	1.0	0.00593
THERMODYNAHICS 0.0225CANCELLED, NOT BUILT	THERMODYNAMICS	THERMODYNAMICS	STRUCT. DYNAMICS	STRUCT. DYNAMICS	THERMODYNAMICS	THERMODYNAMICS	AERODYNAMICS	CANCELLED, NOT BUILT	THERMODYNAMICS	STRUCT. DYNAMICS 0.0125	THERMODYNAMICS	AERODYNAMICS	THERMODYNAMICS	AERODYNAMICS	THERMODYNAMICS	AERODYNAMICS	THERMODYNAMICS	THERMODYNAMICS	AERODYNAMICS	STRUCT. DYNAMICS 1.0	THERMODYNAMICS
19-0TS 20-0	21-0T	22-015	23-0	24-0	25-0	26-0TS	27-0	28-0TS	29-0	30-0	31-0	32-0TS	33-0	34-0TS	35-0	36-0TS	37-0T	38-0	39-0	40-0	41-015

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AERO	AERODYNAMICS	0.015	FORCE & MOMENTS	STABILITY & CONTROL / RCS MODEL
ERC	AERODYNAMICS	0.0405	FORCE & MOMENTS	VERIFICATION (SUBSONIC) STABILITY & CONTROL MODEL
ERO	AERODYNAMICS	0.015	FORCE & MOMENTS	STABILITY & CONTROL (REMOTE CONTROLLED) MODEL
ERO	AERODYNAMI CS	0.03	FORCE & MOMENTS/PRESSURES	FORCE & MOMENTS/PRESSURES STABILITY & CONTROL ORBITER/CARRIER MODEL
盖	THERMODYNAMICS	0.00593	PAINT	HEAT TRANSFER DISTRIBUTION MODEL
ERO	AERODYNAMICS	0.03	PRESSURES/FORCE	AIRLOADS MODEL
ERO	AERODYNAMICS	0.0125	FORCE & MOMENTS	STABILITY & CONTROL ORBITER/CARRIER SEP. MODEL
ERO	AERODYNAMICS	0.015	FORCE & MOMENTS	STABILITY & CONTROL MODEL
HER	THERMODYNAMI CS	9000	THERMOCOUPLES	GAMMA EFFECT HEATING MODEL
ERO	AERODYNAMICS 1	0.01	FORCE & MOMENTS	STABILITY & CONTROL MODEL
ERO	AERODYNAMICS	0.01	FORCE & MOMENTS	STABILITY & CONTROL MODEL
HER	THERMODYNAMICS	0.111	THERMOCOUPLES	FLAT PLATE: WING/ELEVON GAP SIMULATION
원	STRUCT. DYNAMICS	0.14	STRAIN GAGES	WING/ELEVON FLUTTER MODEL
 ™	STRUCT. DYNAMICS	0.14	STRAIN GAGES	VERTICAL/RUDDER FLUTTER MODEL
ĒR.	THERMODYNAMICS	0.0175	PAINT	PHASE CHANGE PAINT MODELS OF VERTICAL STABILIZEFS
80	NERODYNAHICS	. T.	PRESSURES:AIR DATA PROBES	PRESSURES:AIK DATA PROBES ORBITER FOREBODY (NOSE BOOM) MODEL
哥	HERMODYNAMICS	1.0	THERMOCOUPLES & PRESS.	FLAT PLATE: SHOCK GENERATOR MODELS
克	HERMODYNAMICS	0.01	THIN FILM GAGE / PRESS.	HEAT TRANSFER DISTRIBUTION MODEL
Ē	THERMODYNAMICS	0.0175	THERMOCOUPLES	THIN SKIN TEMPERATURE MODEL
ER	THERMODYNAMICS	0.01	PRESSURES	AEROHEATING PRESSURE MODEL
2	-CANCELLED, NOT BUILT			. .
\mathbf{S}	CANCELLED, NOT BUILT	-		
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	THERNODYNAMICS	0.0175	PAINT	WING SECTION (SHOCK GENERATOR) MODEL
ER	THERMODYNAMICS	0.04	PRESSURES: BASE HEATING	BASE HEATING BASE HEATING PLUME MODEL

WING SECTION (SHOCK GENERATOR) THIN SKIN MOD.	STABILITY & CONTOL MODEL	STABILITY & CONTROL MODEL ,	STABILITY & CONTROL MODEL	STABILITY & CONTROL / RCS MODEL		STABILITY & CONTROL MODEL		STABILITY & CONTROL MODEL	CTS COLD-JET PLUME SIMULATION ASCENT MODEL	SURES STABILITY & CONTROL / PRESSURES MODEL	STABILITY & CONTROL (SPOILERS) MODEL	· · · · · · · · · · · · · · · · · · ·	RIGID RIGID STABILITY CHECKOUT MODEL	AEROELASTIC STRUCTURAL DYNAMIC MODEL	UTTER TPS STRUCTURAL PAWEL MODEL	HEAT TRANSFER FÖREBODY MODEL	HEAT THIN-SKIN FOREBODY MODEL	AIRLOADS/AERO NOIS MODEL	ILES FLAT PLATE: FRSI TILE PANEL	-		FECT COLD-JET SIMULATION ASCENT MODEL	STABILITY & CONTROL MODEL
THERIOCOUPLES	FCRCE & MOMENTS	FORCE & MOMENTS	FORCE & MOMENTS	FORCE & MOMENTS		FORCE & MOMENTS		FORCE & MOMENTS	PRESSURES: JET EFFECTS	FORCE & MOMENTS/PRESSURES	FORCE & MOMENTS		STRAIN GAGE/FLUTTER/RIGID	STRAIN GAGE/FLUTTER	STRAIN GAGE:PANEL FLUTTER	PAINT	THERMOCOUPLES	PRESSURES	THERMOCOUPLES: FRSI TILES			FORCE & PRESS: JET EFFECT	FORCE & MOMENTS
0.025	0.015	0.07	0.015	0.0125	ILT	0.01	ILT	0.004	0.01	0.36	0.004	ILT	0.055	0.055	1.0	0.04	0.04	0.035	1.0	LT	1.1	0.02	0.02
THERMODYNAMICS	AERODYNAMICS	AERODYNAMICS	AERODYNAMICS	AERODYNAMICS	CANCELLED, NOT BUILT	AERODYNAMICS	CANCELLED, NOT BUILT	AERODYNAMICS	AERODYNAMICS	AERODYNAMICS	AERODYNAMICS	CANCELLED, NOT BUILT	STRUCT. DYNAMICS	STRUCT. DYNAMICS	STRUCT. DYNAMICS	THERMODYNAMICS	THERMODYNAMICS	STRUCT. DYNAMICS	STRUCT DYNAMICS	CANCELLED, NOT BUILT	CANCELLED, NOT BUILT	AERODYNAMICS	AERODYNAMICS
0-99	67-018	1-89	0-69	70-0T	71-0	72-675	73-0T	74-0TS	75-075	0-9/	77-0	78-0	79-0TS	80-0	81-0	82-0	83-0	84-0TS	85-0	- TO-98	87-015	88-015	. 0-68

HEAT TRANSFER DISTRIBUTION	THIN-SKIN WING/WING TIP SFAL MODE	WING/ELEVON PRESSURF DISTRIBUTION MODE!	ELEVON/ELEVON SFAL MODE!	LOWER WING SURFACE SECTION MODE!	STABILITY & CONTROL MODEL	FLAT PLATE: LRSI TILE PANEL	STABILITY & CONTROL MODEL	FLAT PLATE: HRSI TILE PANF!	ORBITER FOREBODY MODEL	LAUNCH/LAUNCH PAD SIMHI ATION MODE				VERIFICATION TRANSONIC HM MODEL (MOD #00)	VERIFICATION S.C. MODEL	VERIFICATION S&C R/C MODE! (MOD #106)	TPS TILE CAVITY FLOW FIFID MODE:	ORBITER/ET TPS CAVITY MODEL	ORBITER/ET DOOR TPS MODE!	ELEVON/ELEVON GAP MODE:	VERTICAL /RIDDER GAP MODE!	EXTERNAL TANK FOREBODY PROTUBERANCE MODEL	VENT PORT MODEL
THERMAL PAINT	THERMOCOUPLES: WING TIPS	PRESSURE	THERMOCOUPLES	PAINT	FORCE & MOMENTS	PRESSURES: LRSI TILE	FORCE & MOMENTS	PRESSURE: HRSI TILE	PRESSURES: AIR DATA PROBES	DYNAMICS: GROUND WINDS		••••••		FORCE & MOMENTS	FORCE & MOMENTS	FORCE & MOMENTS	PRESSURES	PRESSURES	PRESSURES	PRESSURES	PRESSURES	PRESSURE	PRESSURES
0.005	0.08	0.0175	0.04	0.03	0.05	1.0	0.03	1.0	0.1	0.046	<u> </u>	LT.	17	0.02	0.02	0.02	1.0	1.0	1.0	1.0	1.0	0.25	1.0
THERMODYNAMICS	THERMODYNAMICS	THERMODYNAMICS	THERMODYNAMICS	THERMODYNAMICS	AERODYNAHICS	STRUCT. DYNAMICS	AERODYNAHICS	STRUCT, DYNAMICS	AERODYNAMICS	STRUCT. DYNAMICS	CANCELLED, NOT BUI	CANCELLED, NOT BUILT	CANCELLED, NOT BUILT	AERODYNAMICS	AERODYNAMICS	AERODYNAMICS	AERODYNAMICS	STRUCT, DYNAMICS	STRUCT, DYNAMICS	STRUCT. DYNAMICS	STRUCT. DYNAMICS	STRUCT. DYNAMICS	STRUCT, DYNAMICS
0-06	91:-0	92-0	93-0	94-0	0-56	0-96	97-0	0-86	0-66	100-012	101-0	0-201 46	103-0	104-0	105-0	106-0	107-0	108-0	109-0	0-011	111-0	112-T	113-0

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DOCUMENTATION

Recognition of the need for an integrated, standardized system for processing, storing, and manipulating large blocks of wind tunnel data led to the development of the "System for Automated Development of Static Aerothermodynamic Criteria" in 1966 by Chrysler Corporation Space Division, New Orleans, Louisiana. Typically, raw wind tunnel data counts were automatically reduced to coefficient form at the facility, with many of the subsequent operations done predominantly by hand. Data point corrections, bias shifts, adjustments to the data for scale effects, breakdown of the data for component analysis, plots (and cross plots) for data evaluation, faired and interpolated data, final presentation plots, etc. were all done manually. Structural design related tests such as loads and heating were handled in a similar manner. However, there are usually many more data points for each test condition. Chrysler, in support of the Saturn IB/Apollo Program, and under contract to the MSFC, designed and developed a digital computer program system which would include data file storage and retrieval operations, data computational capability, and automated plotting capability. In 1970, the original system, renamed DATAMAN (short for data management), was proposed by the MSFC as a means to document and file experimental wind tunnel data from the SSV design and This proposal was accepted and the system became operational during the Phase B portion of the Space Shuttle Program. Since the beginning of Phase C/D, approximately one thousand test reports (of which 35 percent were special requests) have been issued in support of the SSV program. Each of these documents is retrievable and referenceable (abstracted in the Scientific and Technical Aerospace Reports, or STAR) and contains complete test information. However the test data is primarily in standard plots and tables, with limited analysis. This method of documenting test data is very unique. The current wind tunnel investigation for a given design results in generating, not only a large amount of data, but the data is obtained from a number of different facilities and is often provided in different nomenclature and format. The impact on the engineering analyst, with limited resources available to organize, manipulate, and plot data, is to either delay release of the data or to limit the scope of the analyses. By automating and standardizing these procedures, as was done for the SSV program, rapid output of the data in the desired reference system and format maximizes its use by the engineering community. These techniques have proven to be both an effective and economical method of documenting, as well as working with, wind tunnel test results and could be applied to any major aerospace program.

A summary of the many advantages of this system follows. The system enables the engineer to spend more time evaluating and analyzing the data by relieving the tedious job of organizing and plotting large quantities of data as a necessary prelude to analysis and evaluation. The initial output of plotted data is available in a time frame that permits rapid evaluation. Thus the engineer can incorporate any findings into subsequent wind tunnel investigations. The system permits maximum exploitation of the data by allowing a complete analysis of major and second order effects by providing the engineer with plots of all of the data, which would not normally be possible with limited manpower. The method permits extensive analysis of the data by providing automated calculation and comparative plotting of such variables as intercepts, derivatives, increments, trim conditions, control power effectiveness, etc. operations which must be performed for design applications of the data and

consequently are equally important to the engineer. The system facilitates comparison of data from current tests with data from prior tests by providing a data storage and retrieval system. It expedites the publication and dissemination of all the data obtained. The system provides a document containing a complete set of the data obtained in the investigation. These documents can subsequently be referenced in more formal documents and presentations. A complete listing of all test documents produced is given in appendix B. Table B1 relates the document number to the test number, test data, model reference configuration and ID, and the facility. Table B2 shows the NASA contractor report (CR) number, the test number, and the report title.

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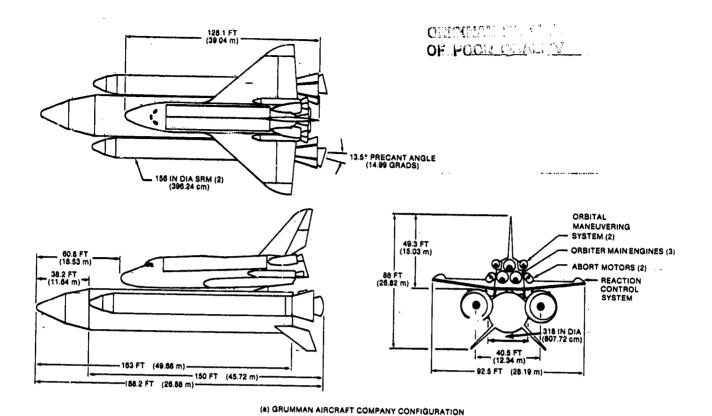
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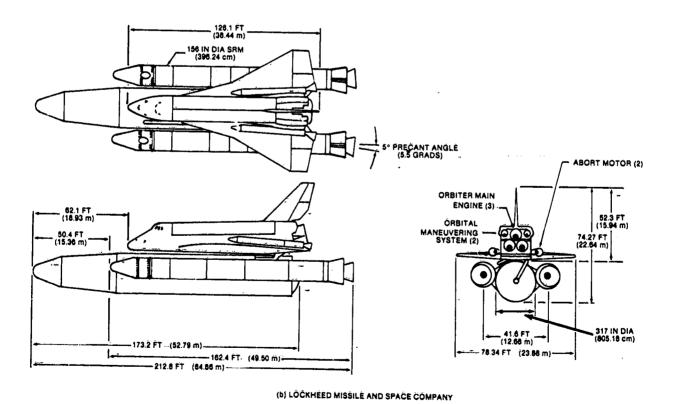
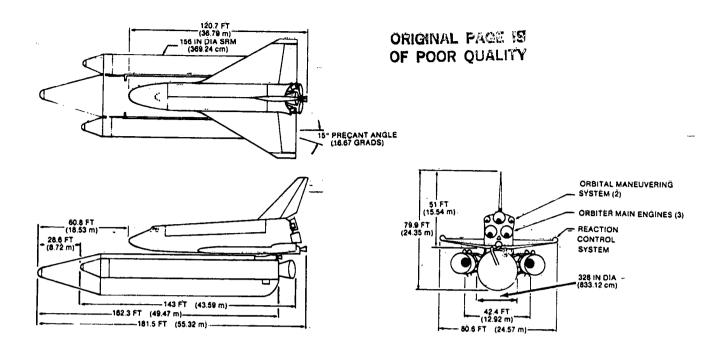
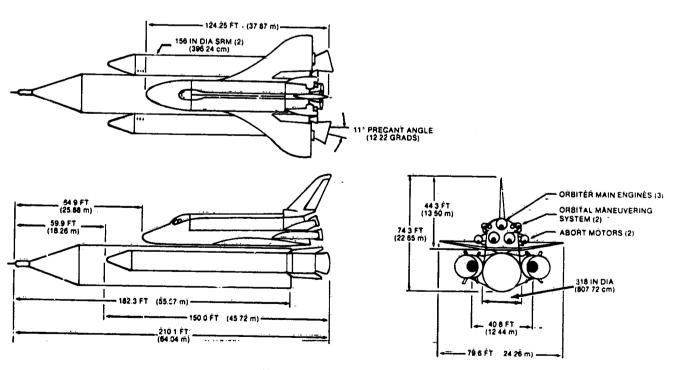


Figure 2.1. - Space Shuttle Phase B Double Prime final configurations.





(c) MCDONNELL DOUGLAS CONFIGURATION



(d) NORTH AMERICAN/ROCKWELL CONFIGURATION

Figure 2.1. - Concluded

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DEFINITION PHASE	PROGRAM MILESTONES - PHASE C.D	ALT OVIB1	DFT: OV162	CARNER	MPSC:	DEVELOPMENTAL VEHICLES: 01	. 20	 Þæ	\$ •	CONFIGURATIONAL CONTROL DRAWINGS VL76-00001	#09000 ·	(66) (196) (196) (196)	-00140A/B -00140C	-8002 -8002A		-000020 -000020	TO BER SE SE WE THE WHILE T	

Figure 3.1. - Space Shuttle configuration evolution timeline.

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CONFIGURATION DESIGNATION	ATP	РЯЯ	2A	3,4	5,6
CC. AFIGURATION CONTROL DRAWING NUMBER	VL70 - 000001	VL70 - 000040A	VL70 - 000089B	VL70 - 000140, 140A/B	VL70 - 000140C, VC70 - 000002
WING DESIGN	50° BLENDED DELTA	50° BLENDED DATA	45°/79° DOUBLE DELTA	45°/81° DOUBLE DELTA	45°/
WING AREA, FT.2 (m2)	3220 (299.14)	3220 (299.14)	2690 (249.90)	2690 (249.90)	2690 (249.90)
WING SPAN, FT (m)	84.0 (25.60)	84.0 (25.60)	78.1 (23.80)	78.1 (23.80)	78.1 (23.80)
OVERALL LENGTH, FT (m)	125.8 (38.34)	125.8 (38.34)	125.2 (38.16)	122.8 (37.43)	122.2 (37.25)
PLAN VIEW	700				
DRY WEIGHT, LB (kg)	170,000 (77,110)	170,000 (77,110)	150.000 (68,039)	150,000 (68,039)	150,000 (68,039)
LANDING PAYLOAD, LB (kg)	40,000 (18,144)	40,000 (18,144)	25,000 (11,340)	32,000 (14,515)	32,000 (14,515)
CG RANGE (% REFERENCE LENGTH).	65.0 - 68.0	65.0 - 68.0	66.0 - 68.0	65.0 - 67.5	65.0 - 67.5

(a) Urbiter Vehicle.

Figure 3.2. - Major configuration evolution definitions.

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CONFIGURATION DESIGNATION	ATP	PRA	VEH. 2A	VEH 34	100
CONFIGURATION CONTROL DRAWING NUMBER	VL72 - 000001	VL72 - 000030	VI 72 - 000061A	75 2000 11 10	VL72 - 000143D
OVERALL LENGTH, FT (m)	205.7 (62.70)	214 3 (84 32)		T./ Unudes, 66B	VC72 - 000002C
ET LENGTH, FT (m)	200 000	(3)	196.3 (36.01)	167.3 (55.26)	183.6 (55.96)
	164.0 (33.47)	189.8 (57.85)	165.0 (50.54)	155.4 (47.37)	153.7 (46.85)
ET DIAMETER, IN (cm)	318.0 (807.7)	304 (772.2)	324 (823.0)	324 (823.0)	331.0 (840.7)
ET NOSE SHAPE	30° BLUNTED CONE	OGIVE (568" R)	OGIVE (605" R)	OGIVE (ROO" R)	OCINE (e12" B)
ET NOSE TIP LENGTH, FT (m)	10.~ (3.15)	10.33 (3.15)	11 50 (3 53)	an On	CGIVE (BIZ IN)
SRB LENGTH, FT (m)	184.8 (56.33)	175.1 (53.37)	145.1 (44.23)	14E 1 144 92)	1.57 (0.48) SPIKE
SRB DIAMETER, IN (cm)	15.6 (30K.2)	480 4444 69		(07:44)	149.1 (45.45)
ABR DISTANCE ACT OF ST. ST. ST.	120 (200.4)	102 (411.3)	142.3 (361.4)	142.3 (361.4)	146.0 (370.8)
CONTROL AT OF ET TIP, FT (B)	17.5 (5.33)	39.3 (11.98)	47.3 (14.42)	36.2 (11.03)	34.5 (10.52)
ORBITER DISTANCE AFT OF ET TIP, FT (m)	80.3 (24.48)	88.6 (27.01)	80.8 (24.63)	56.7 (17.28)	53.9 (16.43)
PROFILE VIEW					
SRB GIMBAL SETTING, DEGREES	11" YAW FIXED	3.5° YAW ± 5°	0°±5°	00 + 50	o € + oG
THE FRUIT OFF WEIGHT THOUSAND BOLLING	1697 (769.7)	1650 (748.4)	1550 (703.1)	1549 (702.6)	1552 (704.0)
(THOUSAND kg) GROSS LIFT OFF WEIGHT, THOUSAND POLINDS	3252 (1475.1)	3276 (1486.0)	2259 (1024.7)	2327 (1055.5)	2327 (1055.5)
(THOUSAND kg)	5411 (2454.4)	5261 (2386.3)	4116 (1867.0)	4183 (1899.6)	4197 (1903.7)

(b) Integrated Vehicle.

Figure 3.2. - Concluded.

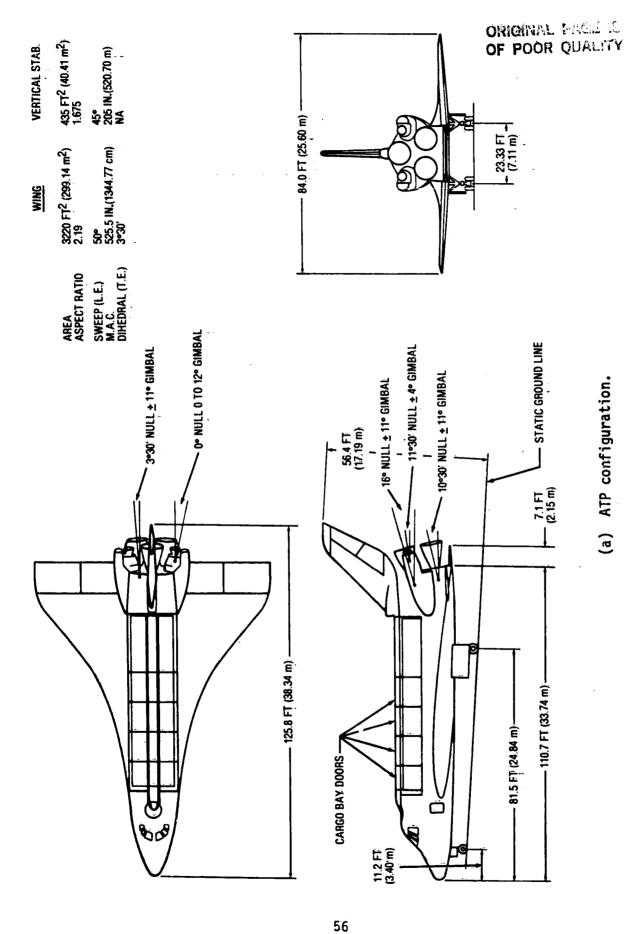
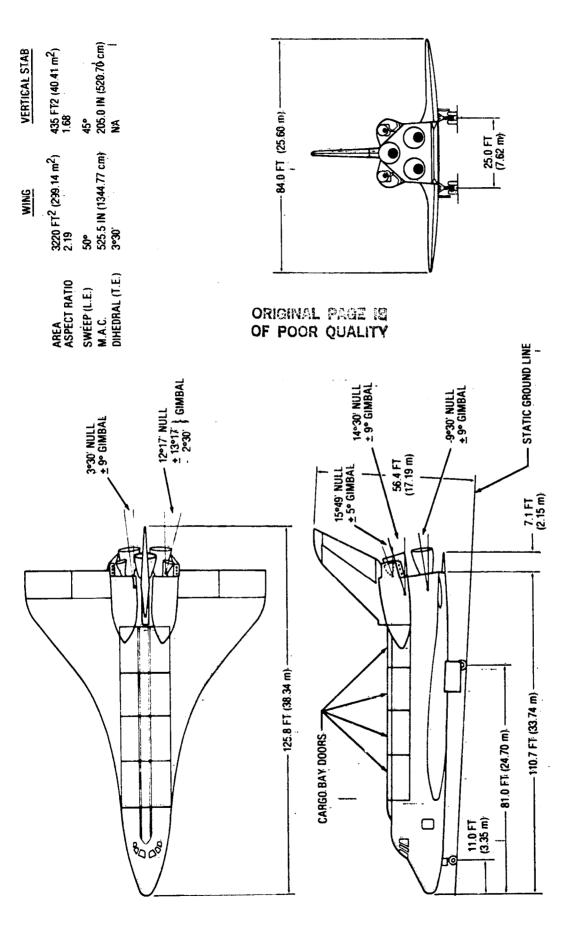
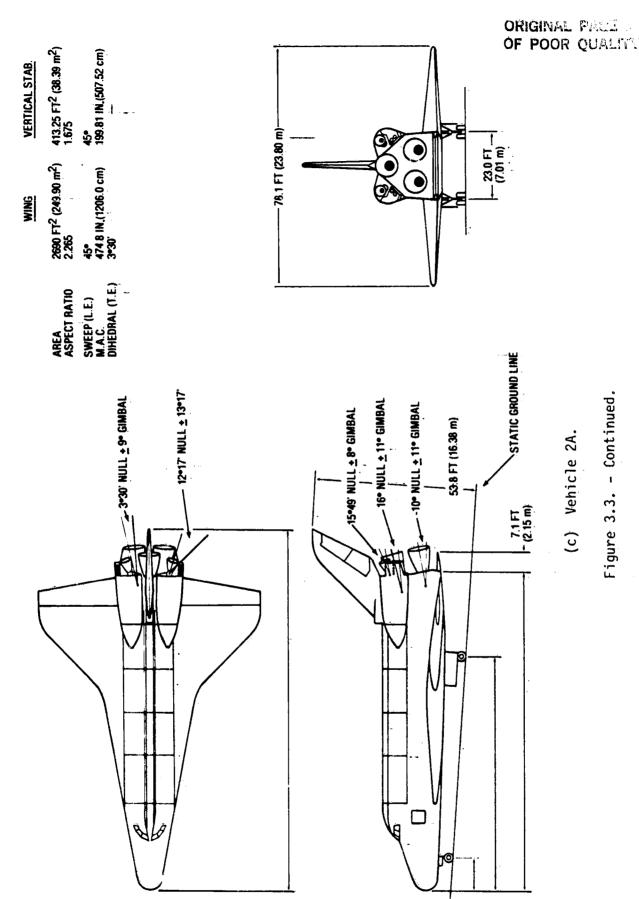


Figure 3.3. - Orbiter Vehicle dimensions; configuration evolution.



(b) PRR configuration.

Figure 3.3. - Continued.



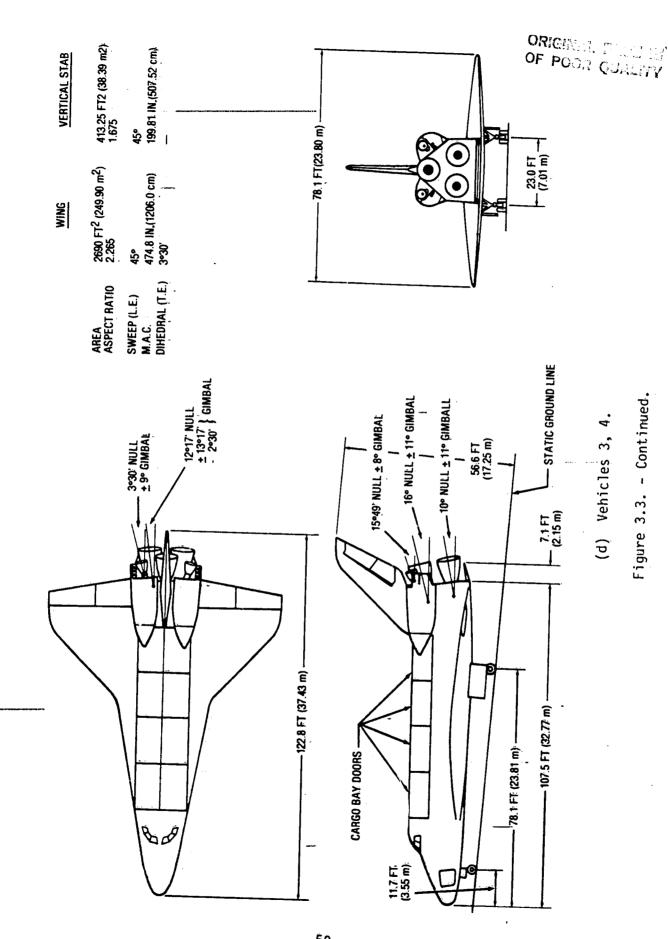


Figure 3.3. - Continued.

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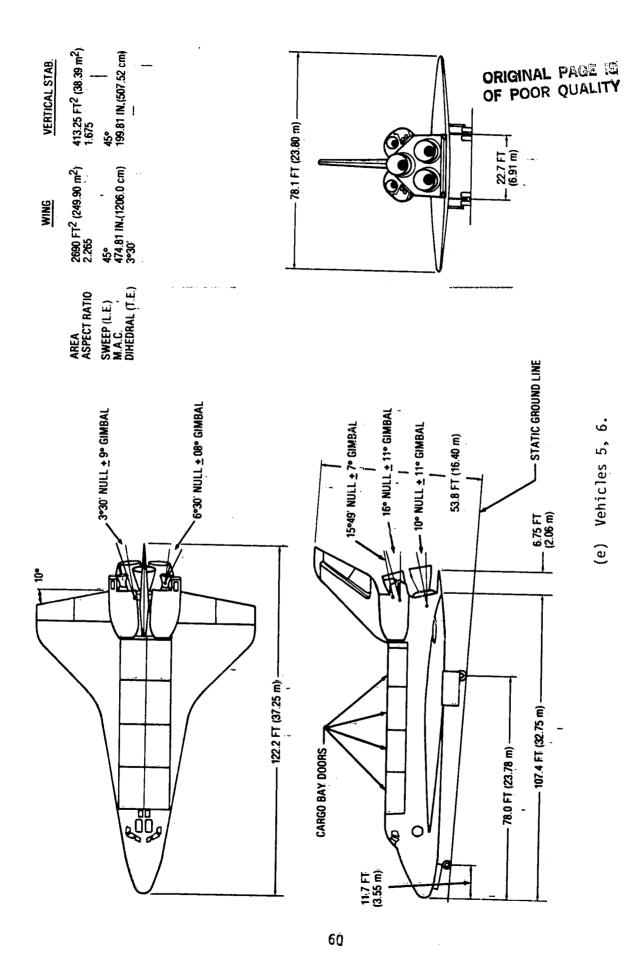
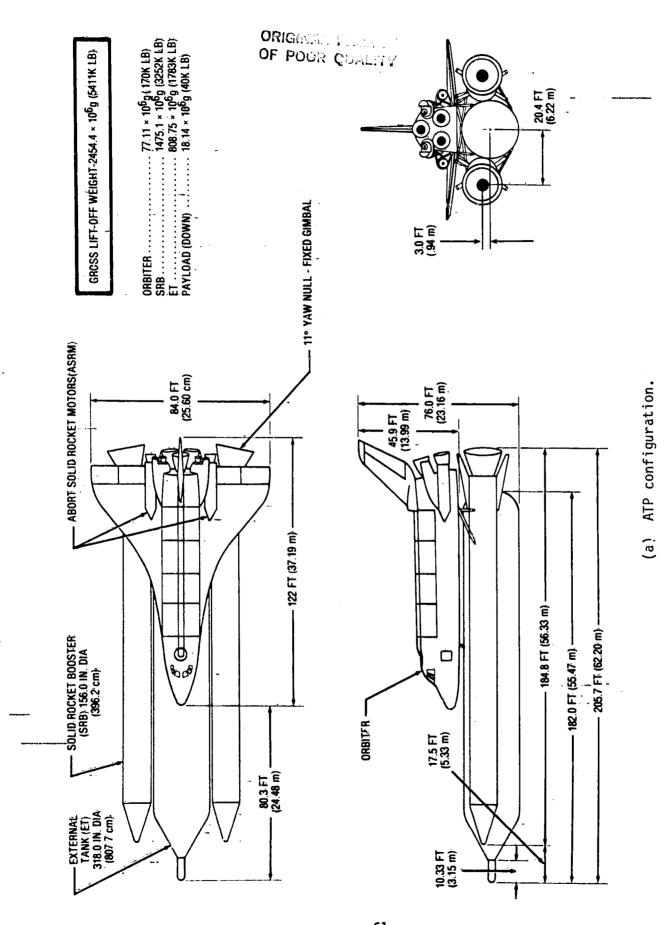
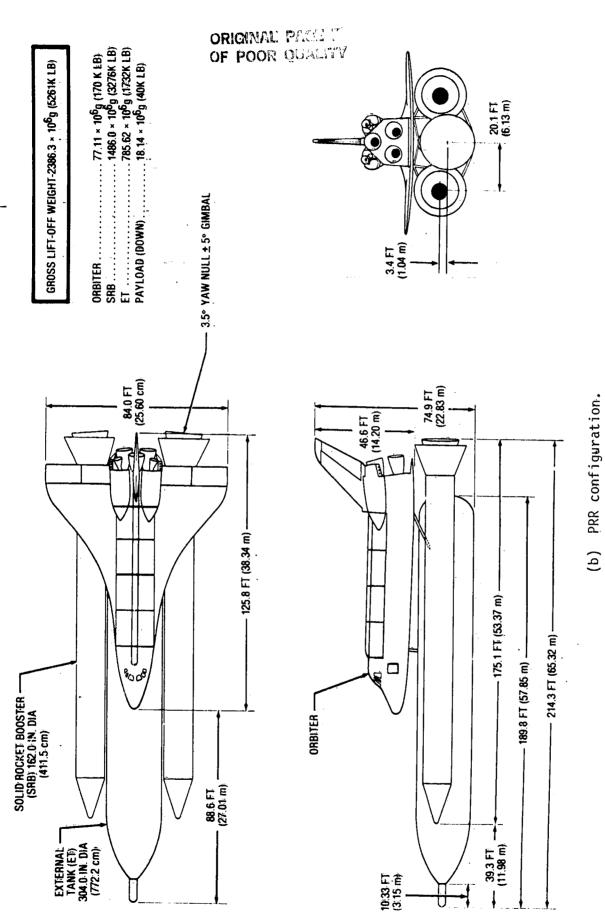


Figure 3.3. - Concluded.



- Integrated Vehicle dimensions; configuration evolution. Figure 3.4.



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Figure 3.4. - Continued.

68.04 × 10⁶g, (150K LB CONTROL) 1024.7 × 10⁶g (2259K LB) 741.6 × 10⁶g (1635K LB) 11.34 × 10⁶g (25K LB)

ET PAYLÓAD (DOWN) SRB

78.1 FT (23.80 cm)

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0° NULL ± 5° GIMBAL

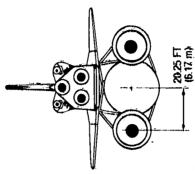
125.2 FT (38.16 m):-

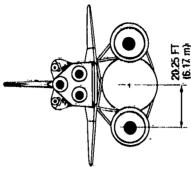
80.8 FT (24.63 m)

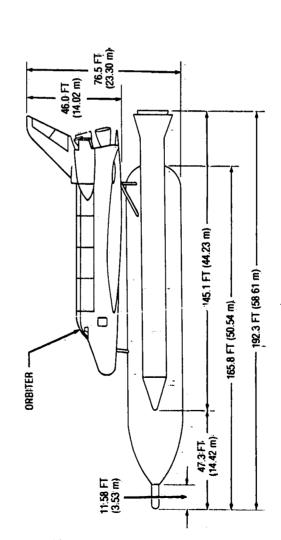
GROSS LIFT-OFF WEIGHT-1867.0 \times 10 6 g (4116K LB)

SOLID ROCKET BOOSTER.— (SRB): 142.3 IN. DIA (361.4 cm)

EXTERNAL -TANK (ET) 324 IN: DIA (823.0 cm)







(c) Vehicle 2A.

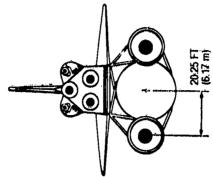
Figure 3.4. - Continued.

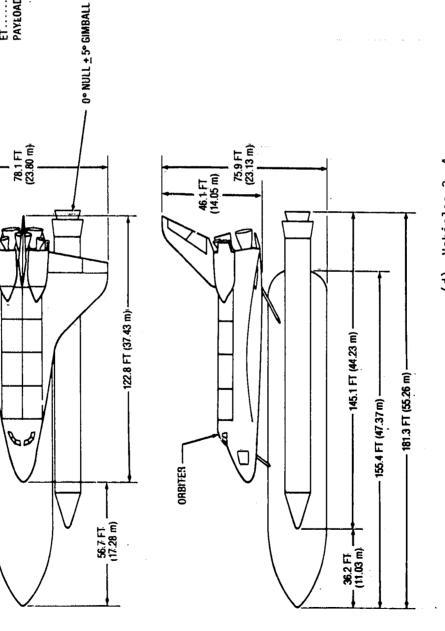
GROSS LIFT-OFF WEIGHT-1904.6 × 10⁵g (4199K LB)

ORBITER

SOL" D ROCKET BOOSTER — (SRB): 142.3-IN: DIA (361.4 cm)

EXTERNAL TANK (ET) 324 IN: DIA (823:0 cm)





(d) Vehicles 3, 4.

Figure 3.4. - Continued.

78.1 FT (23.80 m) 0° NULL ±8° GIMBAL

122.2 FT (37.25 m)

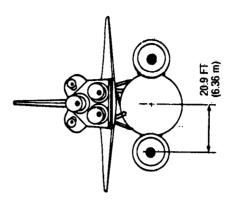
53.9 FT (16.43 m)

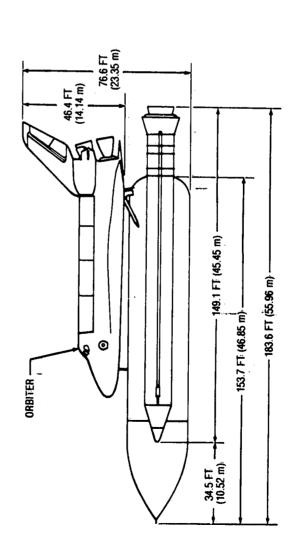
-1.57 FT (0.48 m)

GROSS LIFT-0FF WEIGHT-1903.7 \times 10 6 g (4197 K LB)

SOLID ROCKET BOOSTER — (SRB) 146.0 IN. DIA (370.8 cm)

EXTERNAL — TANK (ET) 331.0 IN. DIA (840.7 cm).





(e) Vehicles 5, 6.

Figure 3.4. - Concluded.

(4)

OLDIVIA OF POOR QUALITY 45• 199.81-IN.(507.52 cm) — 413.25 FT² (38.39 m²) 1.675 VERTICAL STAB 78.1 FT (23.80 m) (6.91 m) 45° 474.81 IN.(1206.0 cm) 3°30' 2690 FT² (249.90 m²) 2.265 WING SWEEP (L.E.) M.A.C. DIHEDRAL (T.E.) AREA ASPECT RATIO 6°30' NULL ± 08° GIMBAL 3-30' NULL ± 9" GIMBAL - 16° NULL ± 11° GIMBAL 15°49' NULL ± 7° GIMBAL - 10° NULL ± 11° GIMBAL 53.8 FT (16.40 m)

122.2 FT (37.25 m) -

vsn

(a) Orbiter Vehicle OV-102.

- STATIC GROUND LINE

6.75 FT (2.06 m)

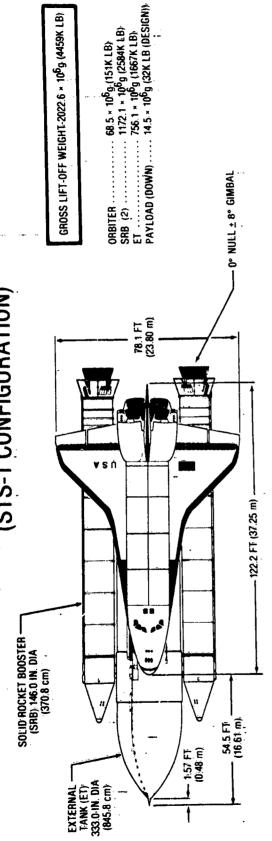
-107.4 FT (32.75 m)-

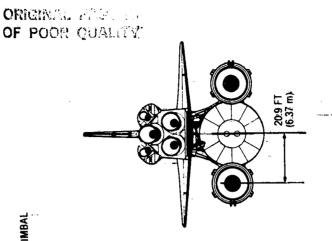
78.0 FT (23.78 m) -

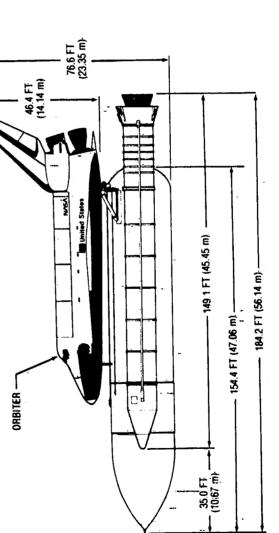
Figure 3.5. - STS-1 mission configurations.

11:7 FT (3.55 m)

SPACE SHUTTLE INTEGRATED VEHICLE (STS-1 CONFIGURATION)







(b) Integrated Vehicle.

Figure 3.5, - Concluded.

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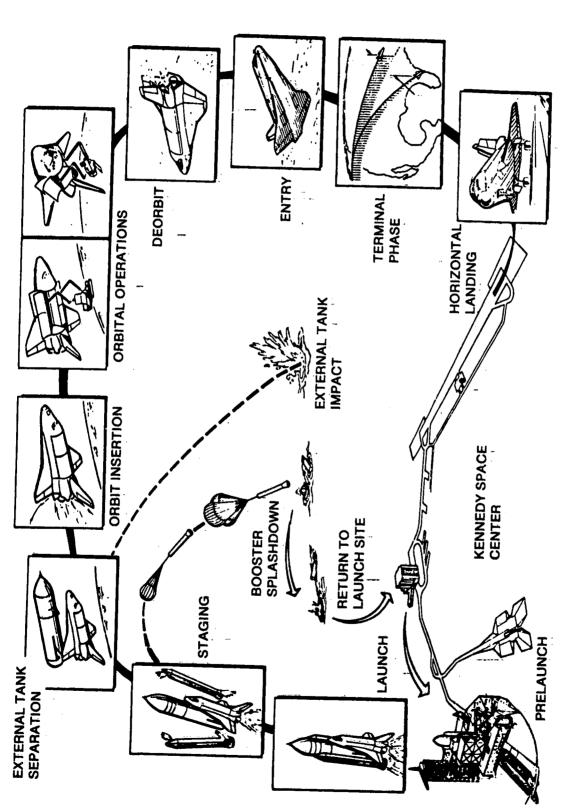
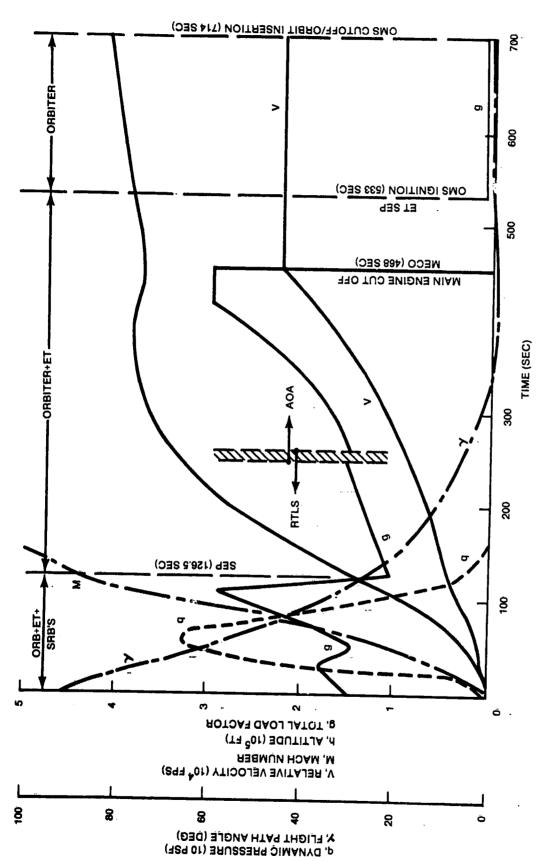


Figure 4.1. - Space Shuttle nominal mission phases.

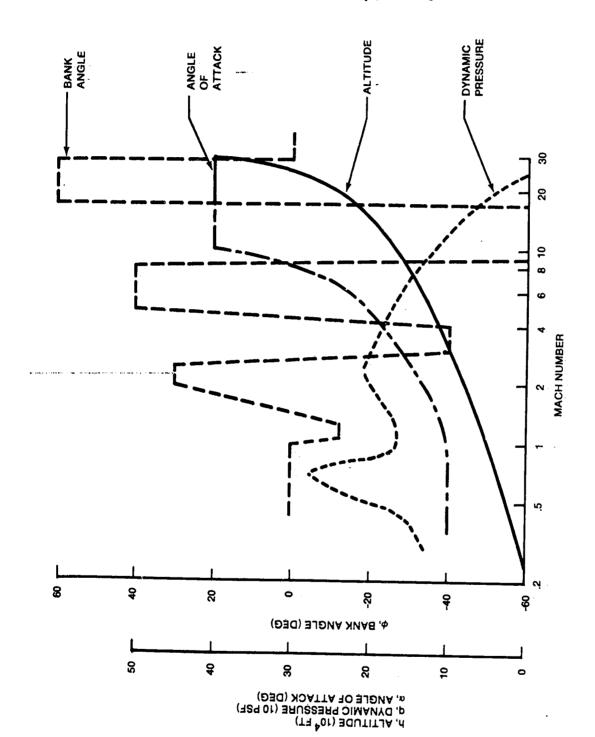


THIS CHART ILLUSTRATES NOMINAL TRAJECTORY PERFORMANCE. ALSO SHOWN ARE DECISION POINTS FOR RETURN TO LAUNCH SITE (RTLS), ABORT ONCE AROUND (AOA), AND ORBITAL INSERTION ABORTS.

Figure 4.2. - Nominal trajectory characteristics.

(a) Ascent.

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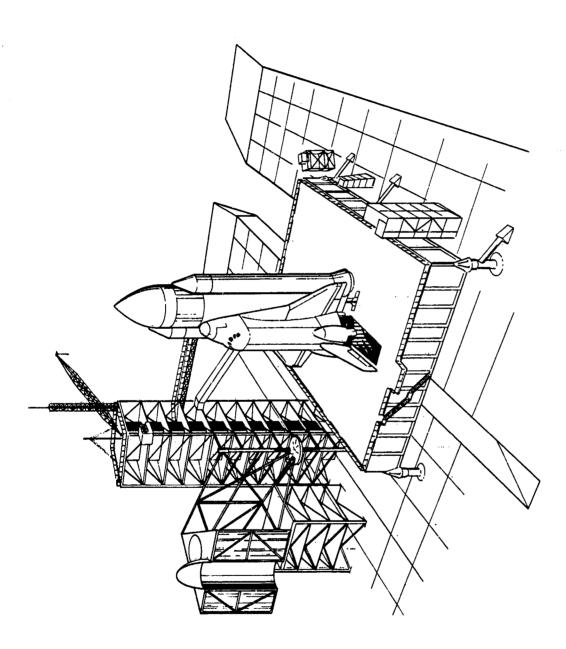
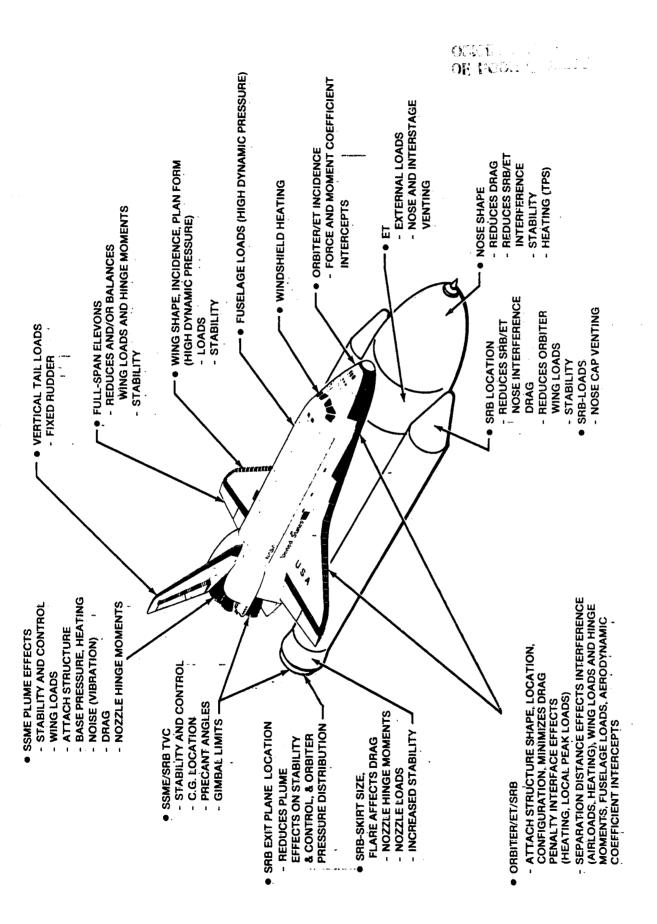


Figure 4.3. - Space Shuttle launch pad configuration.



- Space Shuttle Integrated Vehicle aerodynamic considerations, Figure 4.4.

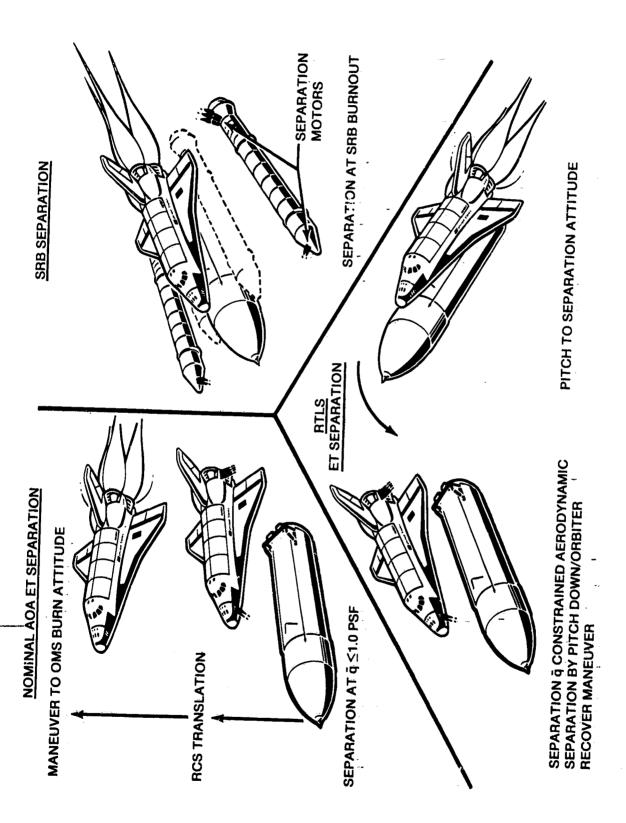


Figure 4.5. - Space Shuttle stage separation characteristics.



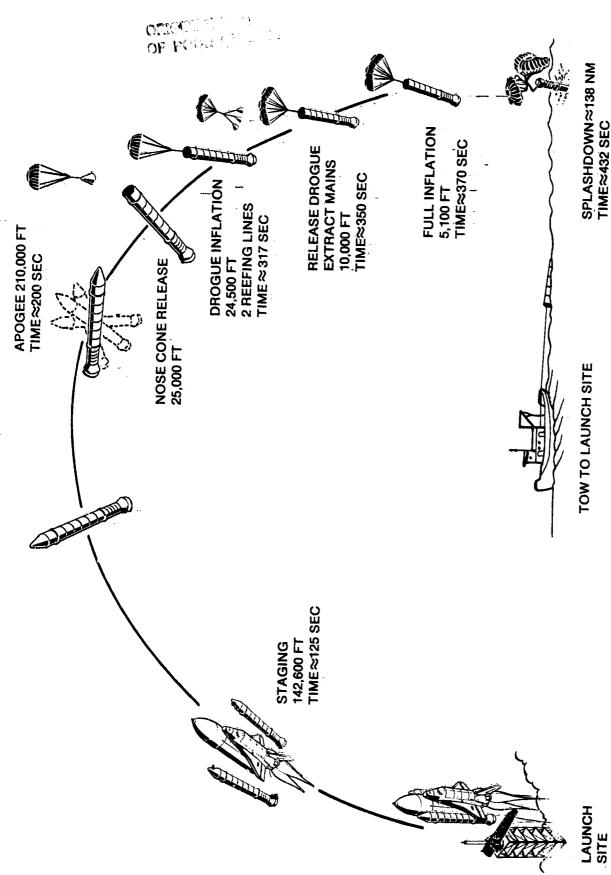


Figure 4.6. - Space Shuttle solid rocket booster recovery phases.

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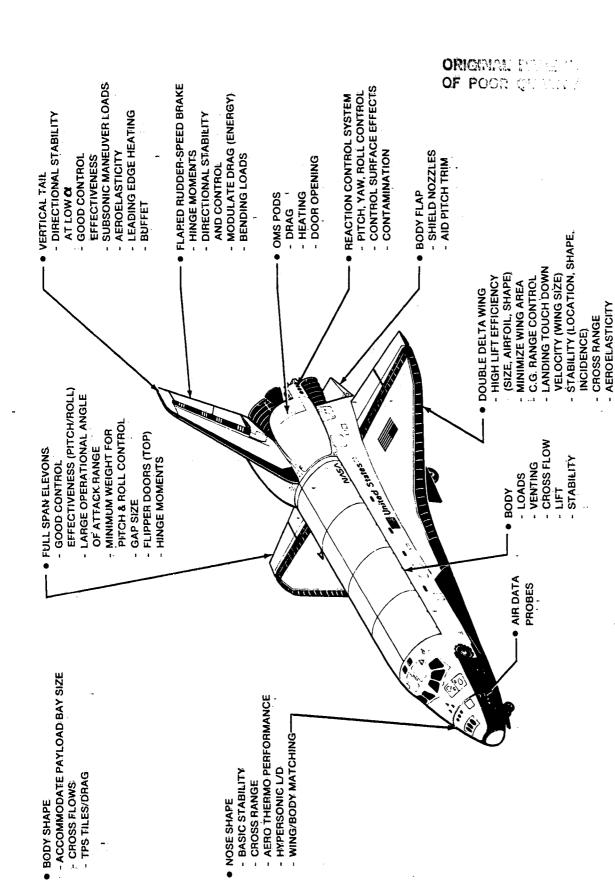


Figure 4.7. - Space Shuttle Orbiter Vehicle aerodynamic considerations.

- LEADING EDGE HEATING

BENDING LOADS

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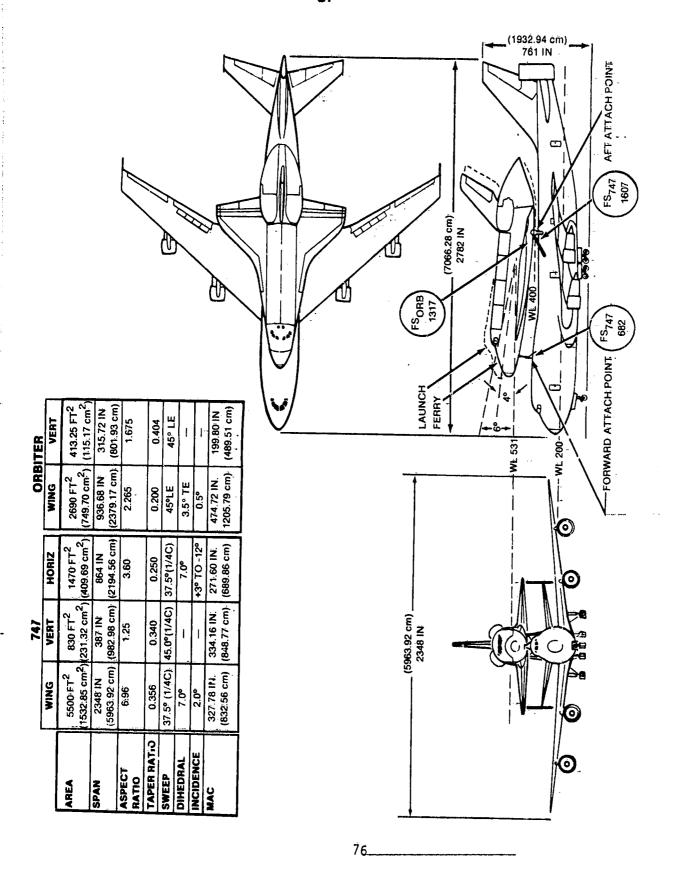
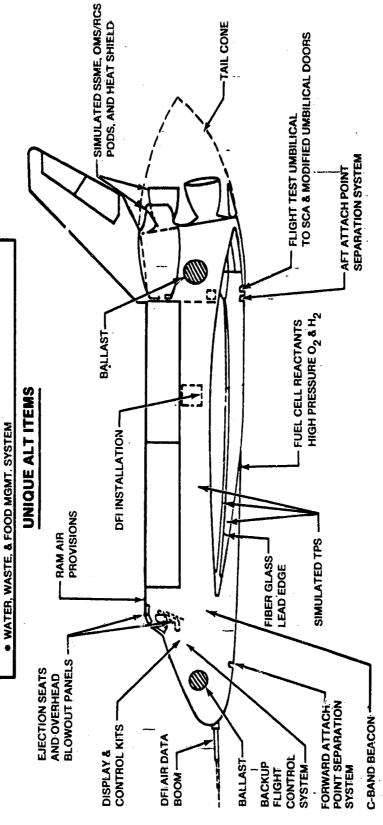


Figure 4.8. - Space Shuttle carrier aircraft mated configuration.

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RCSSSME'S • OMS

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- Space Shuttle Orbiter Vehicle-101 configuration for ALT. Figure 4.9.



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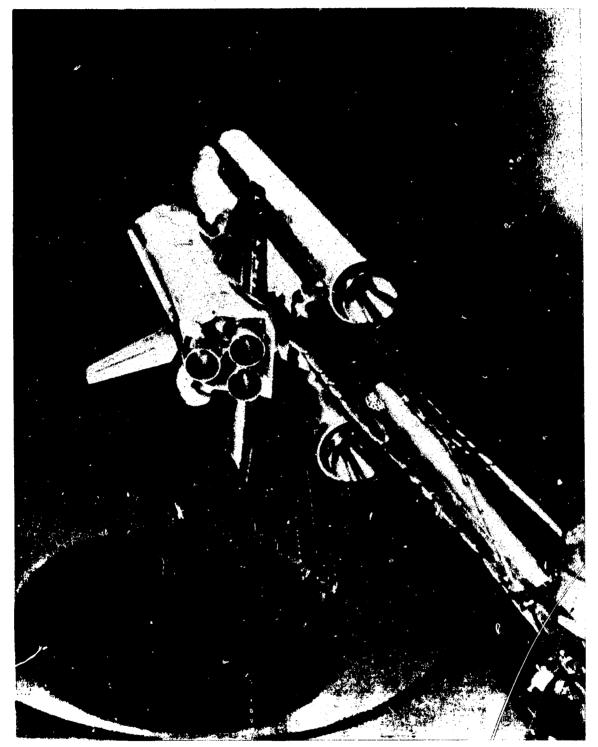


Figure 5.1. - Integrated Vehicle no. 14 sting-supported from ET base; ARC 8- by 7-ft Supersonic Wind Tunnel.

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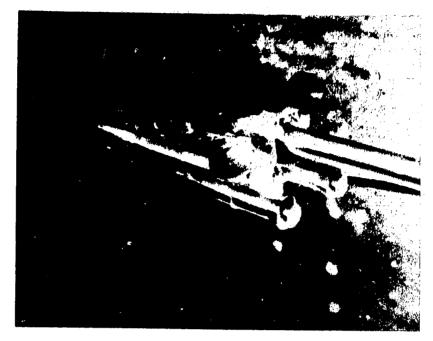


- Integrated Vehicle model no. 67 sting-supported from Orbiter base; LaRC 8-ft Transonic Pressure Tunnel. Figure 5.2.

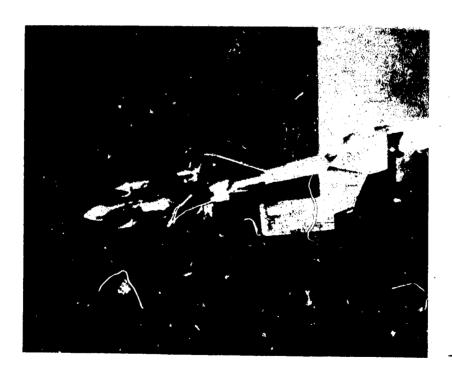
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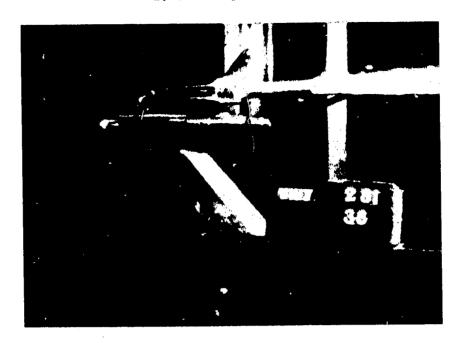
(a) Sting support from Orbiter base.



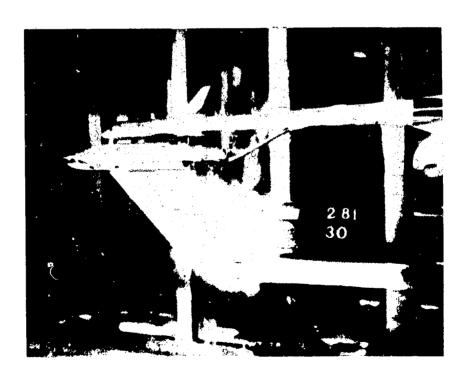
(b) Blade support from SRB side with dummy sting.

Figure 5.3. - Integrated Vehicle model support interference tests; model 13 in the RI 7-ft Trisonic Wind Tunnel.

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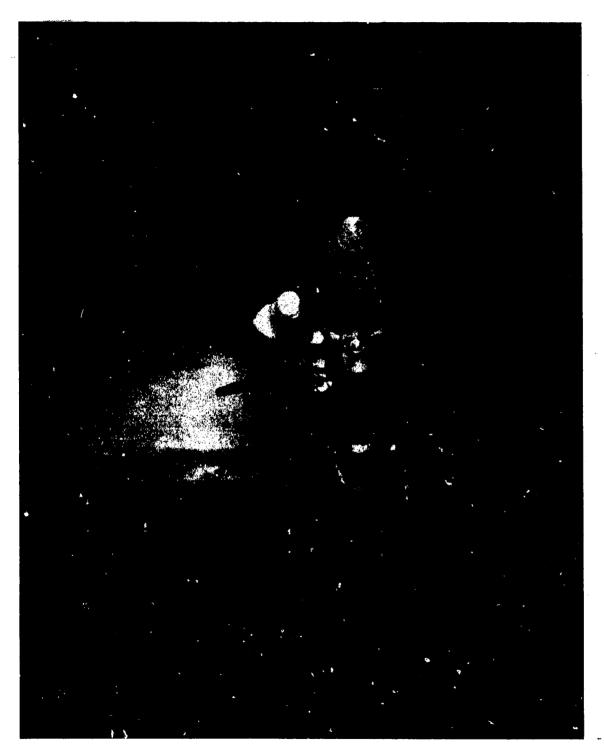
(c) Blade support from ET bottom (forward position) with dummy sting.



(d) Blade support from ET bottom (aft position) with dummy sting.

Figure 5.3. - Concluded.

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(a) Model no. 14 in the ARC 8- by 7-ft Supersonic Wind Tunnel.

Figure 5.4. - Integrated Vehicle plume effects tests; sting-supported.

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(b) Model no. 14 in the ARC 9- by 7-ft Supersonic Wind Tunnel.

Figure 5.4. - Cancluded.

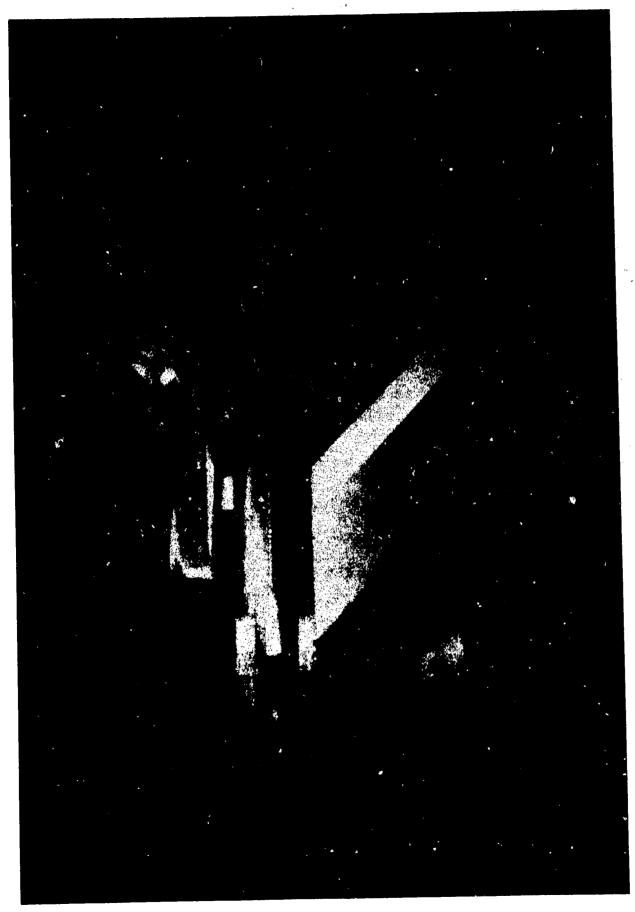


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(a) Front view.

Figiure 5.5. - Integrated Vehicle plume effects tests; blade-supported model no. 88 in the ARC 11-ft Transonic Wind Tunnel.



(b) Side view with active plumes.
Figure 5.5. - Continued.

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(c) Base view.

Figure 5.5. - Concluded.



Figure 5.6. - Integrated Vehicle plume effects test; solid plumes, model no. 14 in the ARC 9- by 7-ft Supersonic Wind Tunnel.

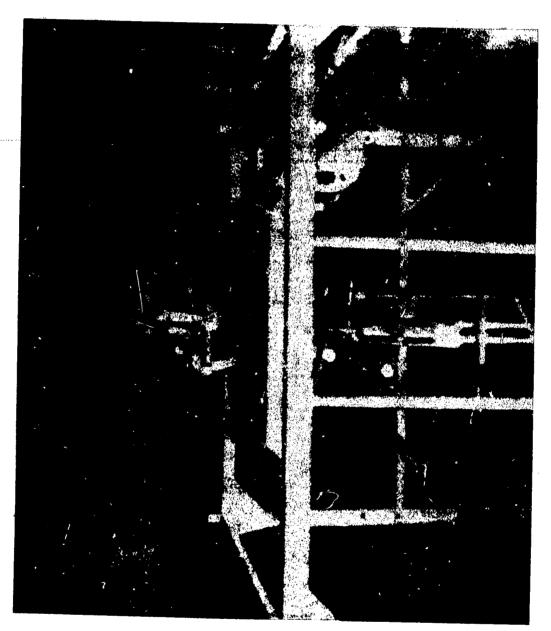


Figure 5.7. - Integrated Vehicle plume effects at high altitudes; model no. 25 in the JSC Vacuum Chamber Facility.



(a) Plan view.

Figure 5.8. - First stage separation test with SRB separation-motors simulated; ___ model no. 32 in the AEDG+A Tunnel.

(4)

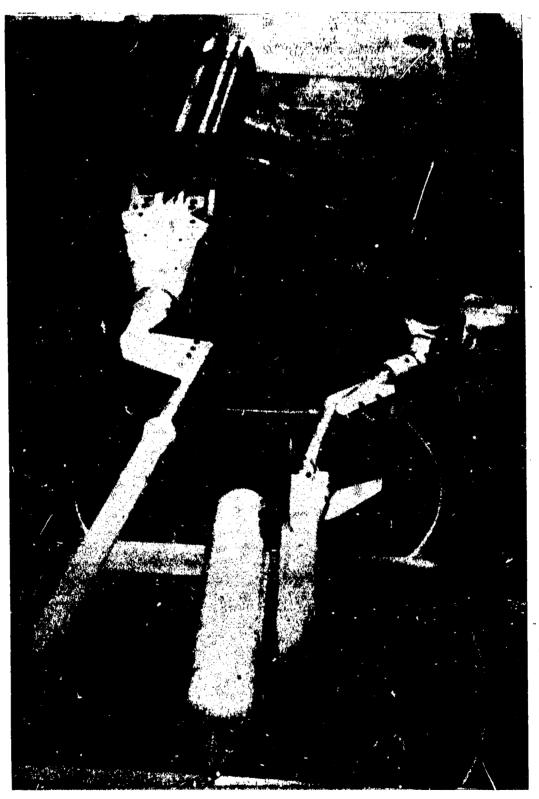
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(b) Řight side view.Figure 5.8. - Concluded.

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- First stage separation test (motor off); model no. 52 using the captive trajectory system in the AEDC-A Tunnel. Figure 5.9.

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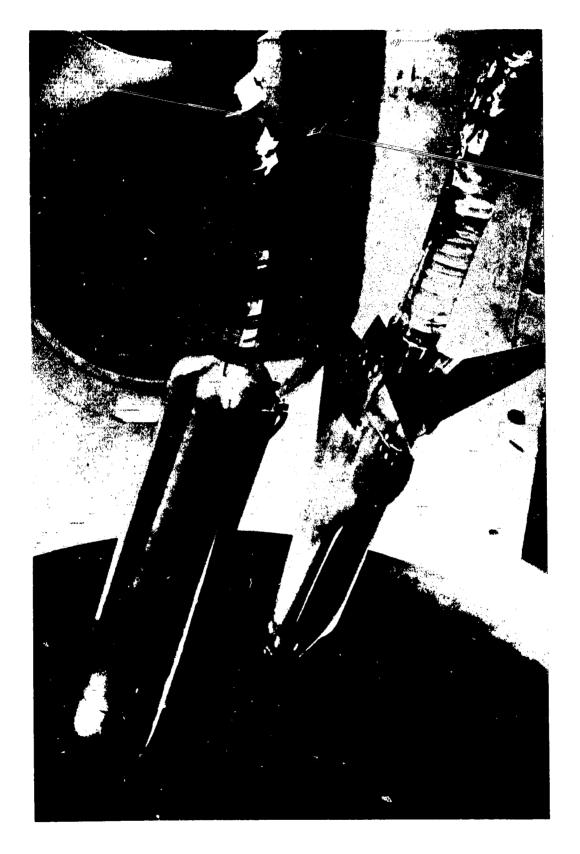


Figure 5.10. - Second stage separation test (RTLS conditions); model no. 70 in the AEDE-B Tunnel.

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- Heating test using thermocouples; model no. 60 in the AEDC-A Tunnel. Figure 5.11.

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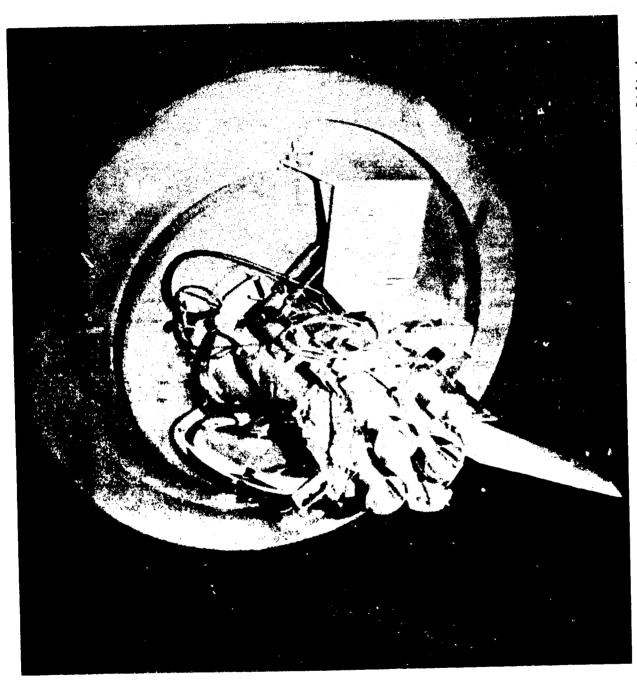


Figure 5.12. - Heating test of base heat shield at simulated high altitude; model no. 25 in the MSFC Impulse Base Flow Facility.

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Figure 5.13. - Heating tests with high fidelity models; closeup of aft Orbiter/ET attach structure, model no. 60 in the AEDC-A Tunnel.

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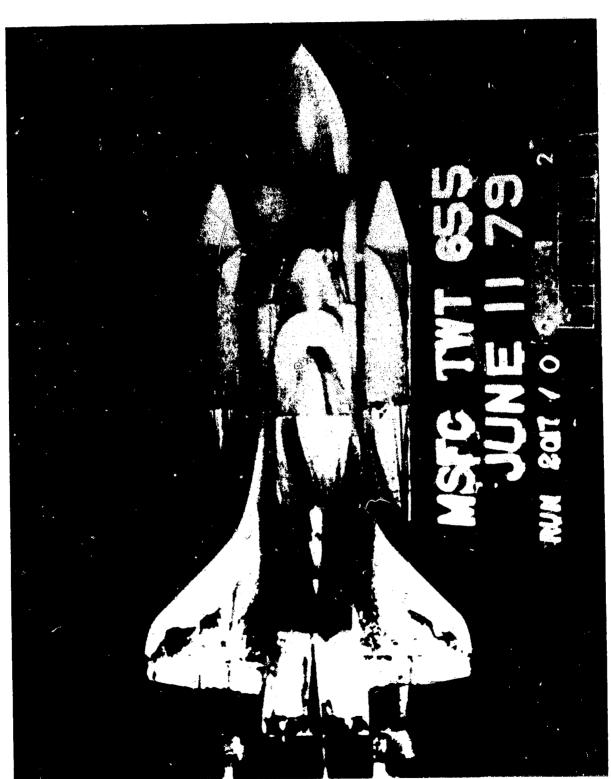


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Figure 5.14. - Heating/pressure test of full-scale tiles; model no. 58 in the ARC 3.5-ft Hypersonic Tunnel.

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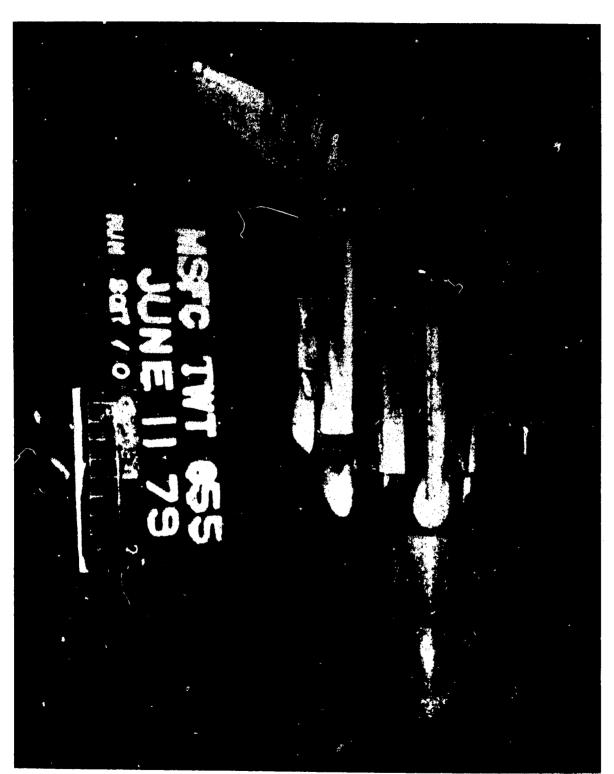


(a) Plan view, top.

Figure 5.15. - Oil flow test; model no. 74, MSFC 14-in. Trisonic Wind Tunnel.



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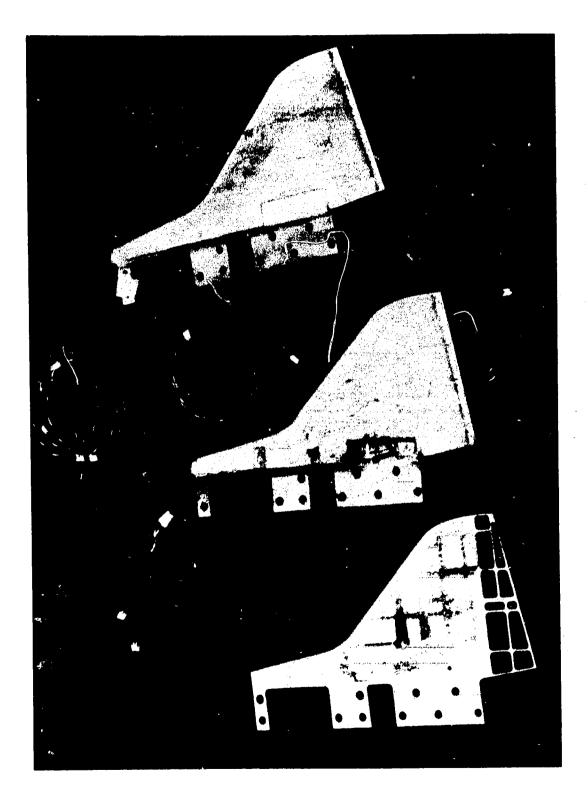


(b) Side view, left.

Figure 5.15. - Concluded.



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(a) Wind construction detail.

Figure 5.16. - Reflection plane model no. 30 tested in the LaRC 26-in. Transonic Blowdown Tunnel.



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(b) Wing/body assembly.

Figure 5.16. - Concluded.



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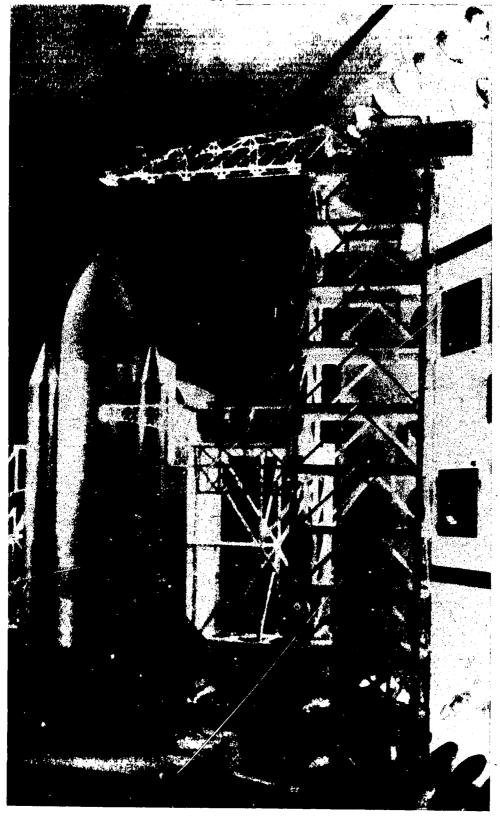


(a) Lift-off configuration.

Eigure 5.17. - Ground winds effect tests in the LaRC 16-ft Transonic Dynamics Tunnel; model no. 100.



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(b) Launch tower configuration.Figure-5.17. - Concluded.



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Figure 5.18. - AADS test in the ARC 14-ft Transonic Wind Tunnel; seven percent forebody model no. 68.

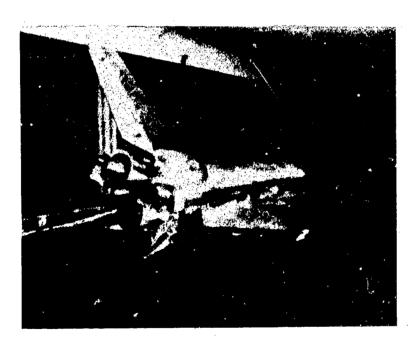




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(a) Aft sting/strut floor mount; model no. 39 in the RI Low-Speed Wind Tunnel, front view.



(b) Aft sting/strut floor mount; model no. 39 in the RI Low-Speed Wind Tunnel, rear view.

Figure 5.19. - Orbiter test support arrangements.



(c) Aft sting/blade support strut; model no. 39 in the ARC 11-ft Transonic Wind Tunnel

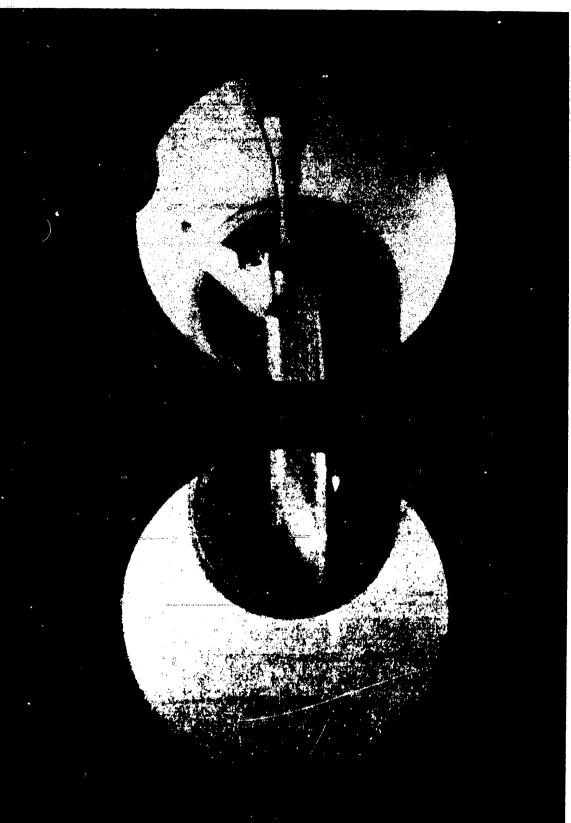
Figure 5.19. - Continued.



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(d) Aft bent sting using roll to get lpha and eta ; model no. 49 in the AEDC-B Tunnel. Figure 5.19. - Continued.



(e) Aft straight sting; model no. 106 in the AEDC-B Tunnel.
Note the higher fidelity of this later model.

Figure 5.19. - Continued.

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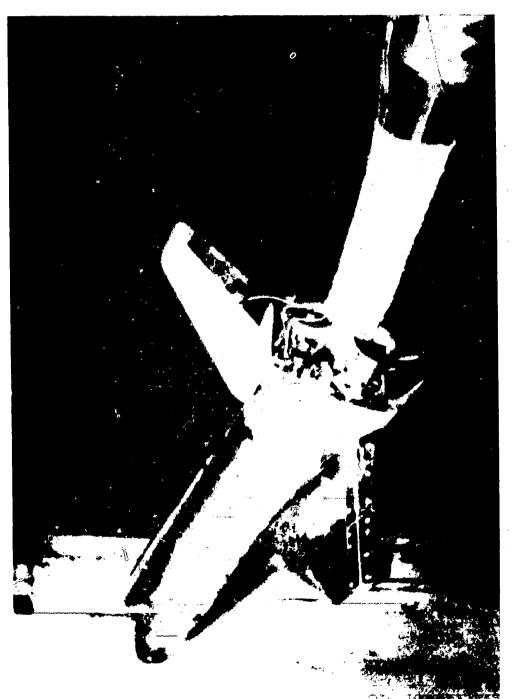


(f) Aft pent sting; model nd. 106 at high lpha (AEDC-B).

Figure 5.19. - Continued.



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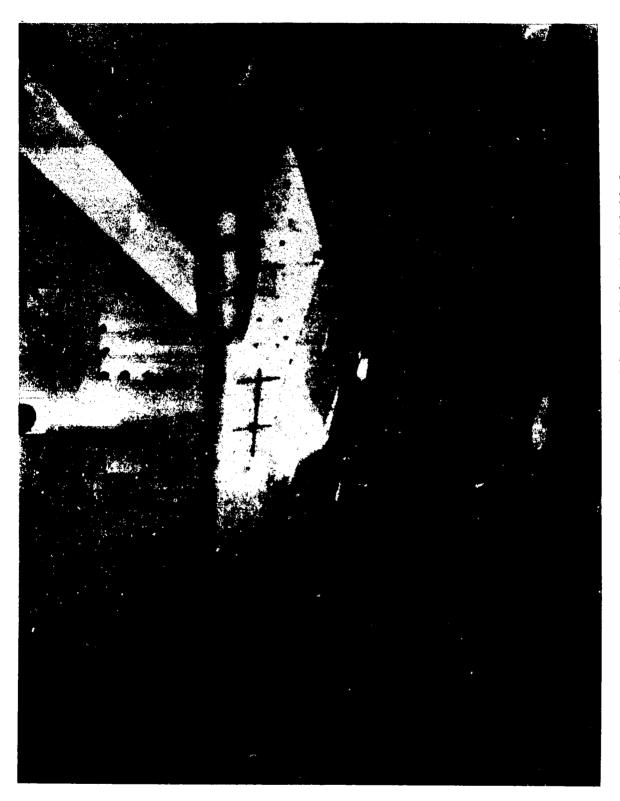
(g) Aft bent sting; model no. 105 at Low α (AEDC-A). Note the high fidelity model and the base pressure instrumentation.

Figure 5.19. - Continued.

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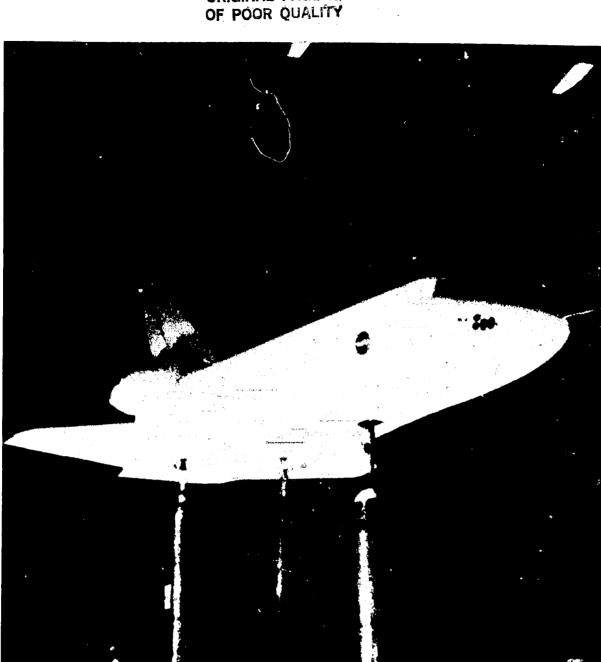


(h) Wing tip mount; model no. 43 in the RI Low-Speed Wind Tunnel. Figure 5.19. - Continued.



(i) Three pylon strut support; model no. 45 in the ARC 12-ft Pressure Wind Tunnel.

Figure 5.19. - Concluded.



(a) Three pylon strut support; front view. .

Figure 5.20. - Large scale model (36 percent) no. 76 in the ARC 40- by 80-ft Subsonic Wind Tunnel.



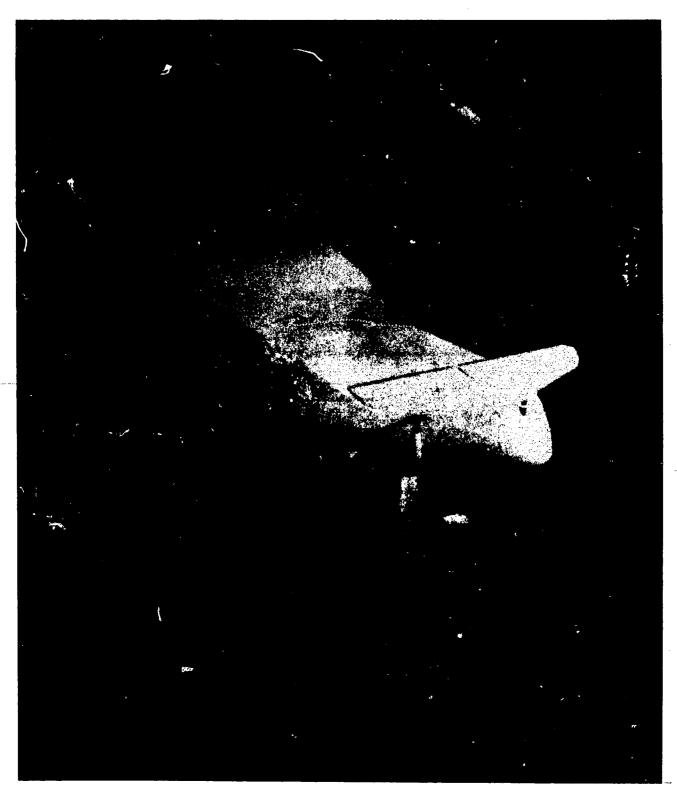
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(b) Nose <u>details</u> showing tile simulation and the nose landing gear. Figure 5.20. - Continued.

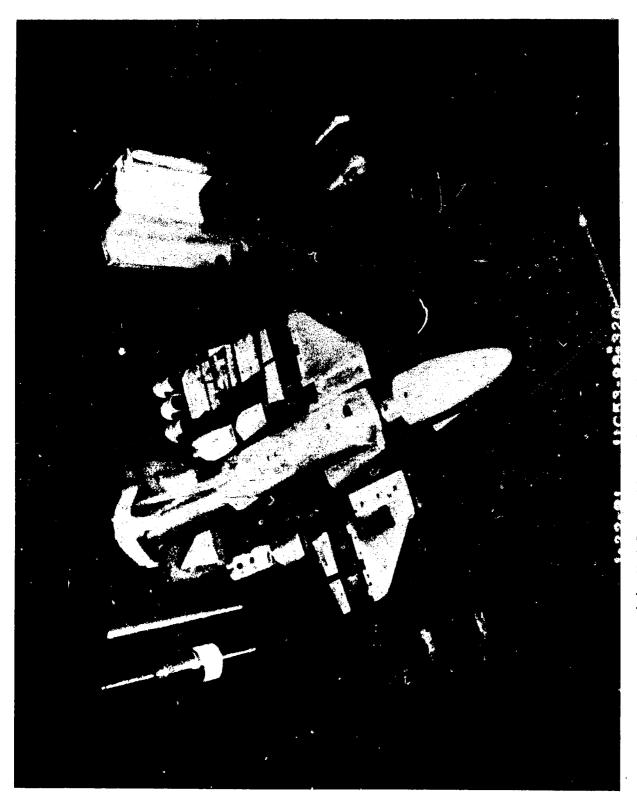


(c) Three pylon strut support; mar view.
Figure 5.20 - Continued.



(d) Tailcone (ALT) configuration. Eigure 5.20 - Concluded.





(a) Model no. 72; exploded view of bolt-on parts. Figure 5.21. - Control surface deflection models.

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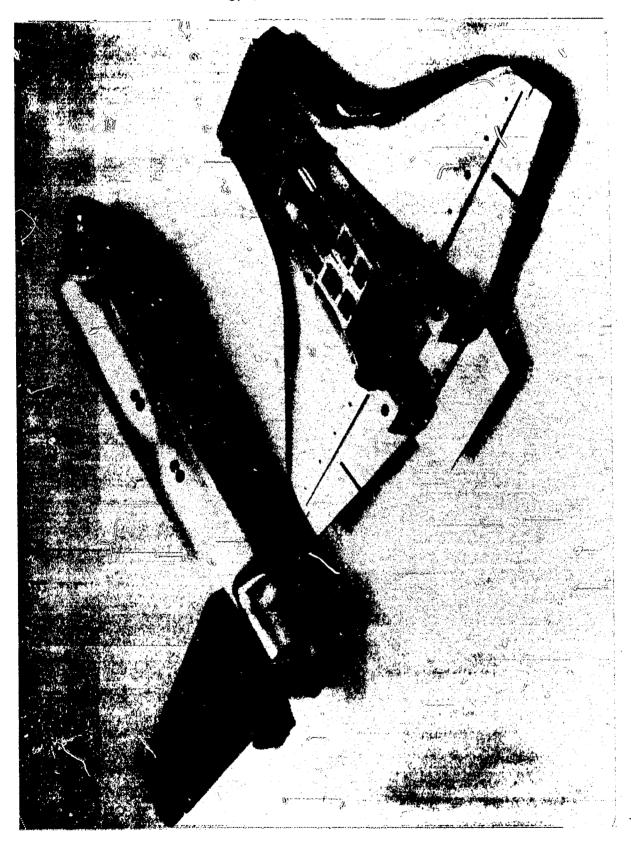


(b) Model no. 72; assembled view of bolt-on parts. Figure 5.21. - Continued.

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(c) Remote elevon model no. 44 showing internal mechanism.

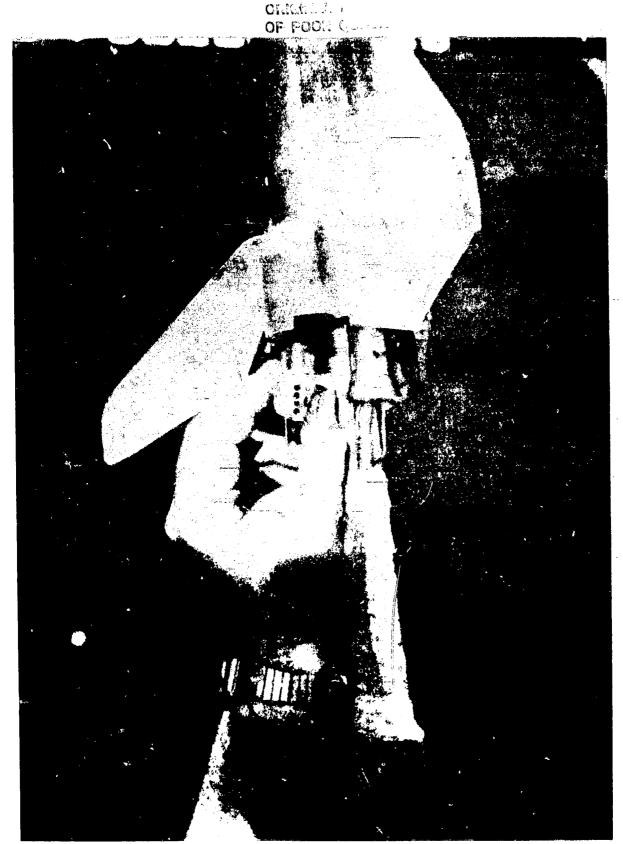
Figure 5.21. - Continued.



(d) Remote elevon/bodyflap/rudder high fidelity model (Vehicle 102 ruter moldlines) no. 106.

Figure 5.21. - Concluded.





(a) RCS pod being installed.

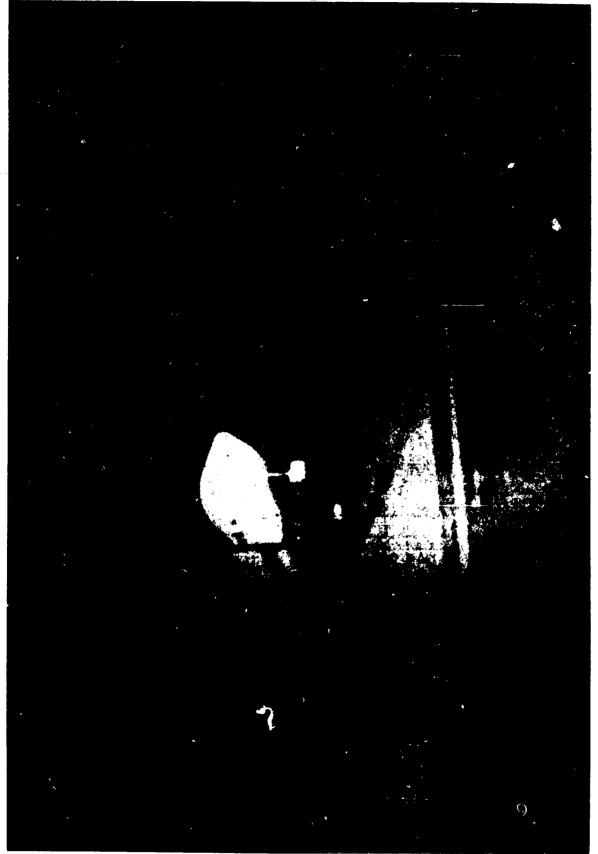
Figure 5.22. - RCS jet simulation model no. 70 in the LaRC Unitary Plan Wind Tunnel.

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(b) Assembled model. |Figure 5.22. - Concluded.

Figure 5.23. - Aeroelastic Model. Picture not available.



(a) Front view.

Figure 5.24. - Ground effects tests; model no. 95 in the LTV 15- by 20-ft Low-Speed Wind Tunnel with moving ground plane.

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(b) Rear view.

Figure 5.24. - Concluded.

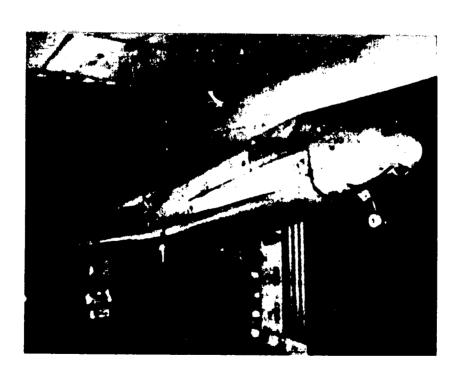


Figure 5.25. - Landing gear floads test; model no.16 in the RI Low-Speed Wind Tunnel.



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(a) Side probes in the ARC 8- by 7-ft Supersonic Wind Tunnel. Figure 5.26. - Orbiter ADS tests; forebody model no. 57.

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(b) Flight test boom (ALT) and side probes in the AEDC 16-ft Transonic Wind Tunnel. - Concluded. Figure 5.26.



(a) Model no. 46 (for LaPC Variable Density Tunnel Test).

- Phase change paint models.

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(b) Model no. 64 installed in the LaRC 31-in. Continuous Flow Hypersonic Tunnel.

Figure 5.27. - Concluded.



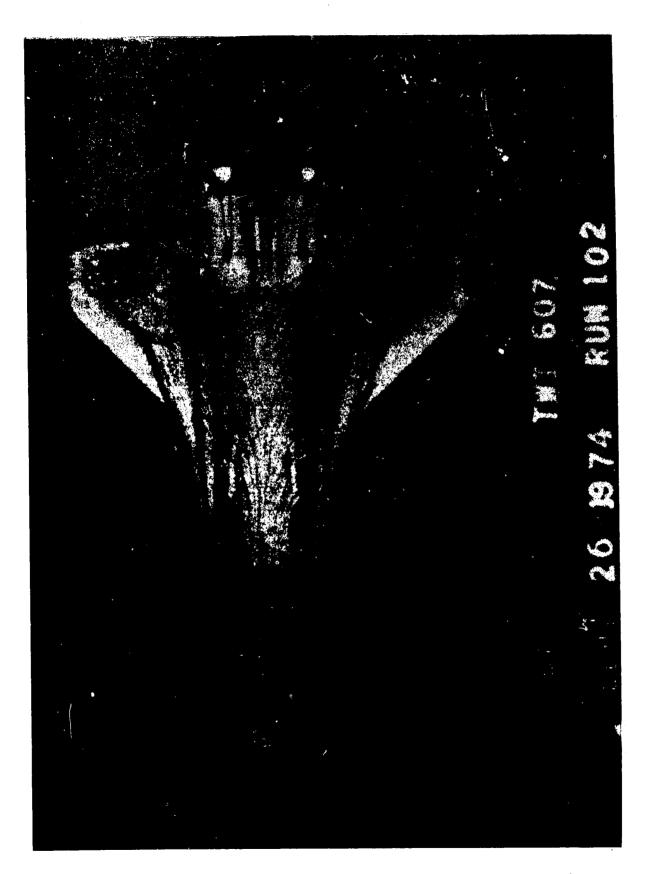
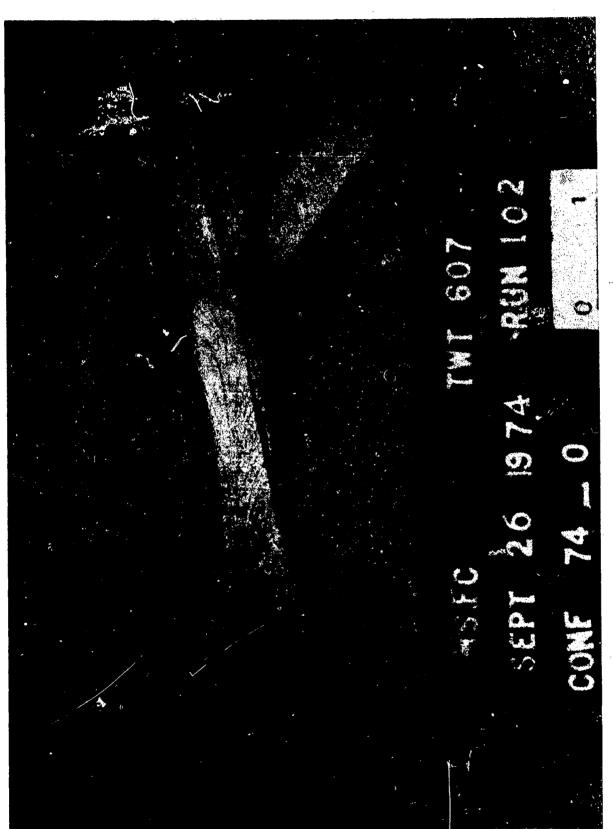


Figure 5.28. - Oil flow photographs; model no. 74 tested in the MSFC 14-in. Trisonic Wind Tunnel.

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(b) Side view.

Figure 5.28. - Concluded.

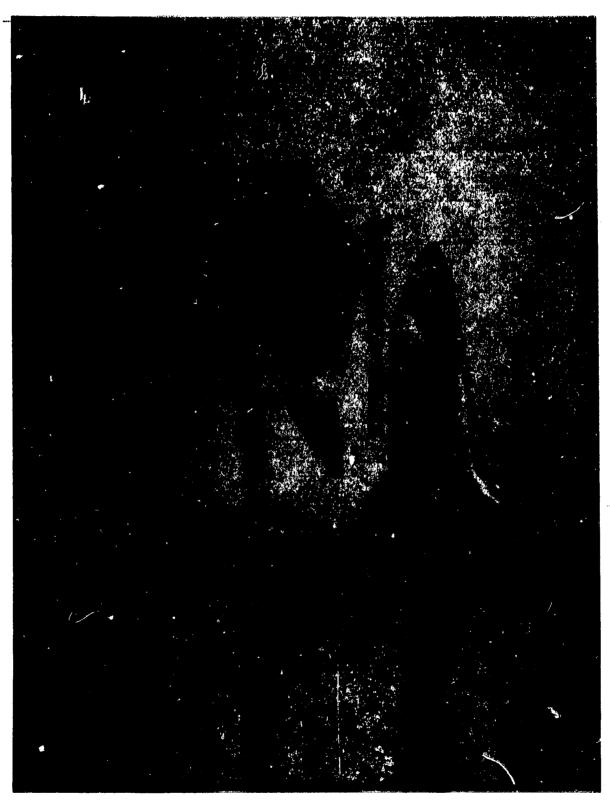


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(a) Model no. 22 installed in the ARC 3.5-ft Hypersonic Tunnel. Figure 5.29, - Orbiter thermocouple models.

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(b) Model no. 50 showing thermocouple locations.

Figure 5.29. - Continued.



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(c) Model no. 83 (forebody) installed in the AEDC-B Tunnel. Figure 5.29. - Concluded.





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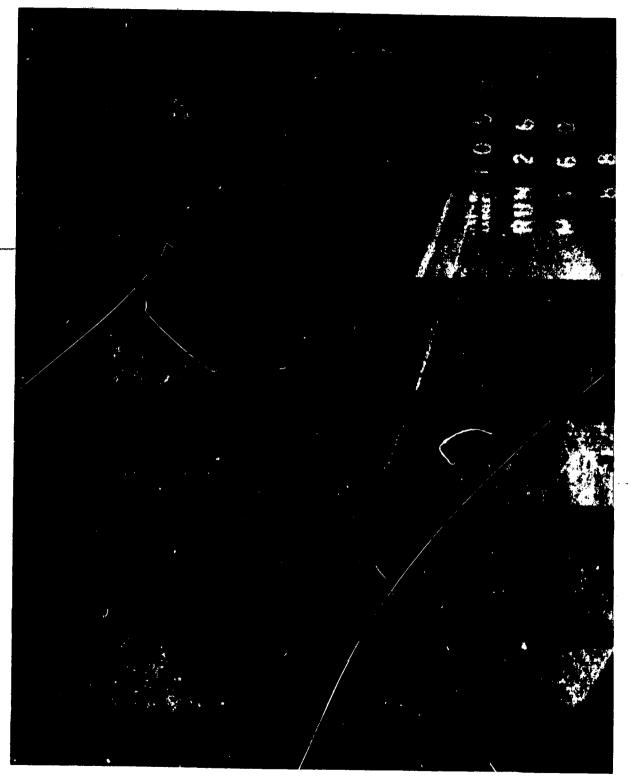


Figure 5.30. - Heating test model no. 29 with probe for tunnel conditions in the AEDC-F Tunnel.

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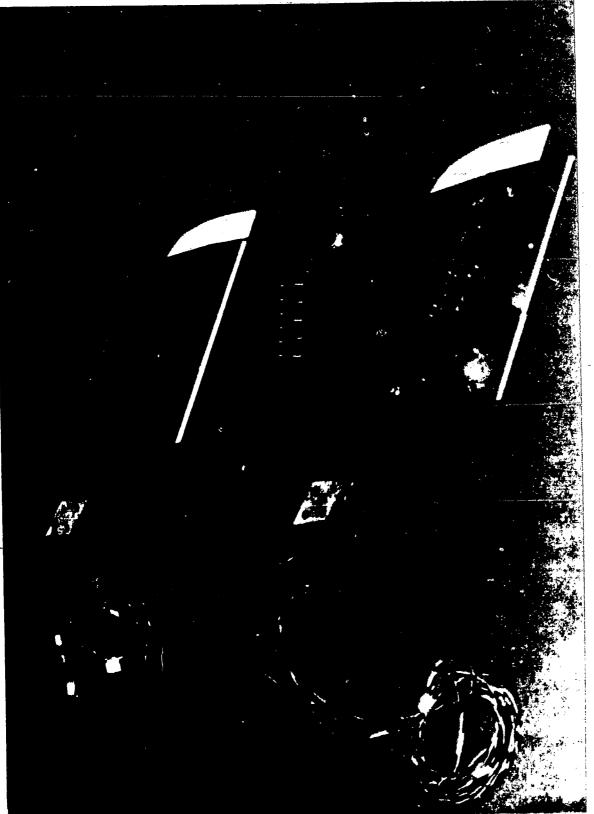
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Figure 5.31. - Schlieren photo of model no. 26 in the LaRC Unitary Plan Wind Tunnel.





(a) Tail instrumentation.

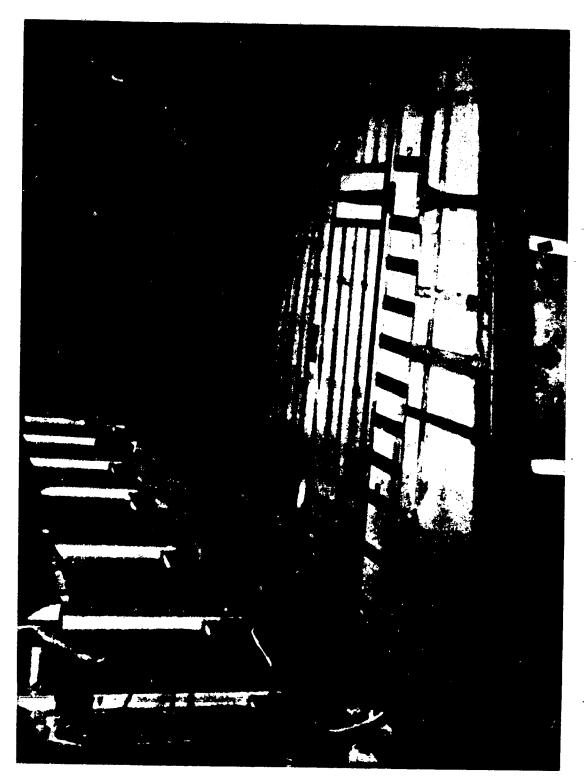
Figure 5.32. - Flutter test of the vertical tail model no. 24 in the LaRC 26-in. Transonic Blowdown Tunnel.

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(b) Model assembled in tunnel. Figure 5.32. - Concluded.

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(a) Wing model with skin removed.

Figure 5.33. - Large-scale model tests for flutter boundaries; model no. 59

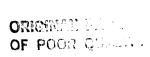


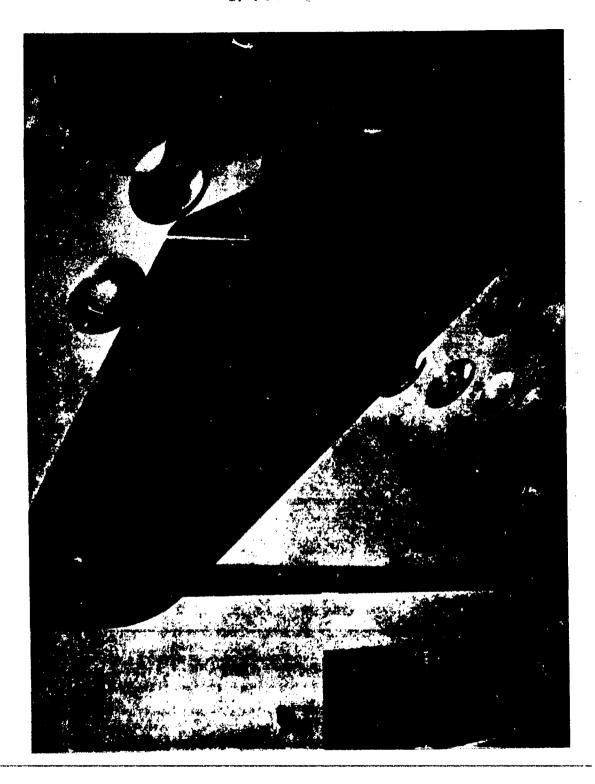
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(b) Wing model installed.

Figure 5.33. - Continued.





(c) Vertical tail model with skin removed.

Figure 5.33. - Continued.



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(d) Vertical tail model installed.
Figure 5.33. - Concluded.

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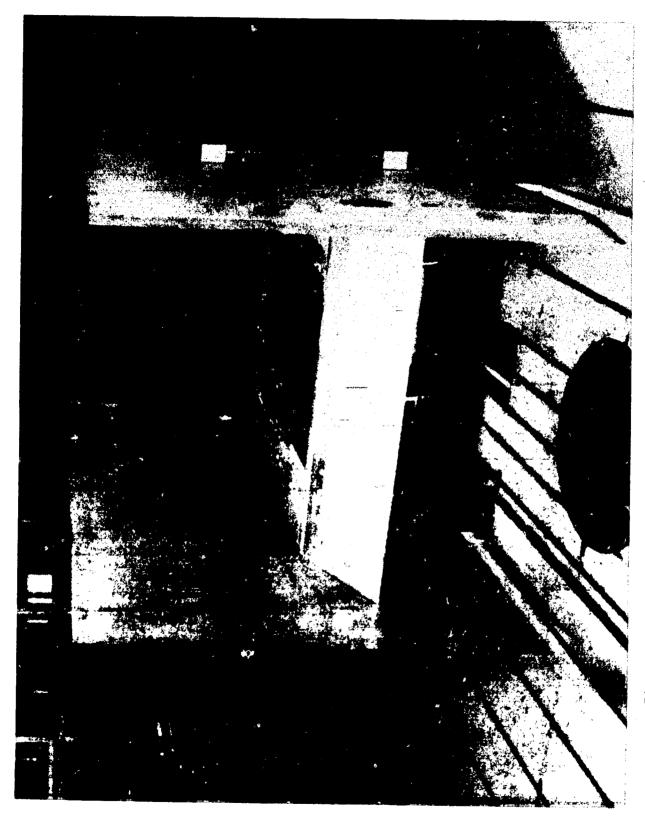


Figure 5.34. - Structural test panel with TPS tiles; model no. 81 in the ARC 11-ft Transonic Tunnel.

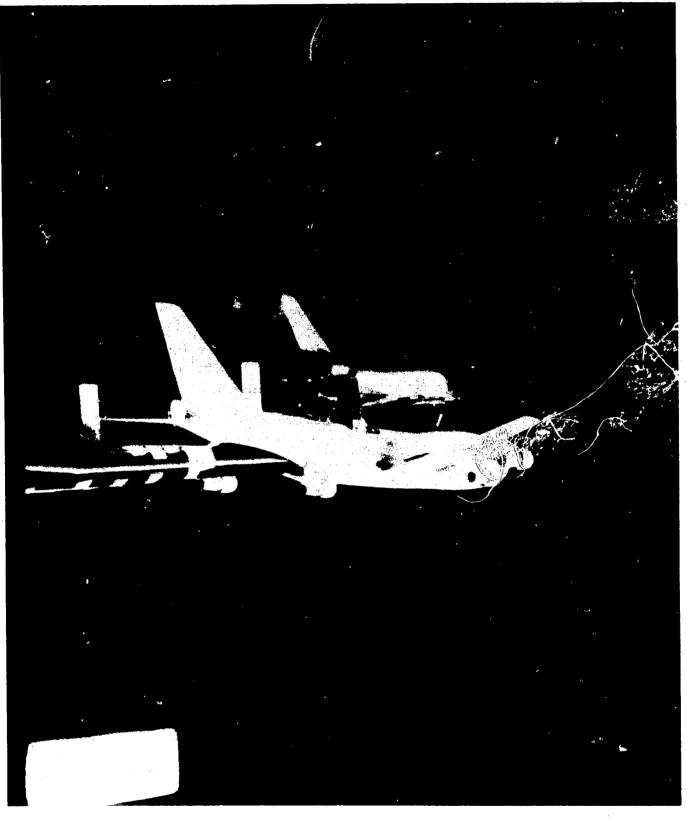


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(a) Orbiter tailcone configuration.

Figure 5.35. - Mated carrier model no. 48 installed in the ARC 14-ft Transonic Wind Tunnel.



(b) Orbiter tailcone off configuration.
Figure 5.35 - Concluded.



- Shuttle Carrier Aircraft separation test; model no. 48 in the ARC 14-ft Transonic Wind Tunnel. Figure 5.36.

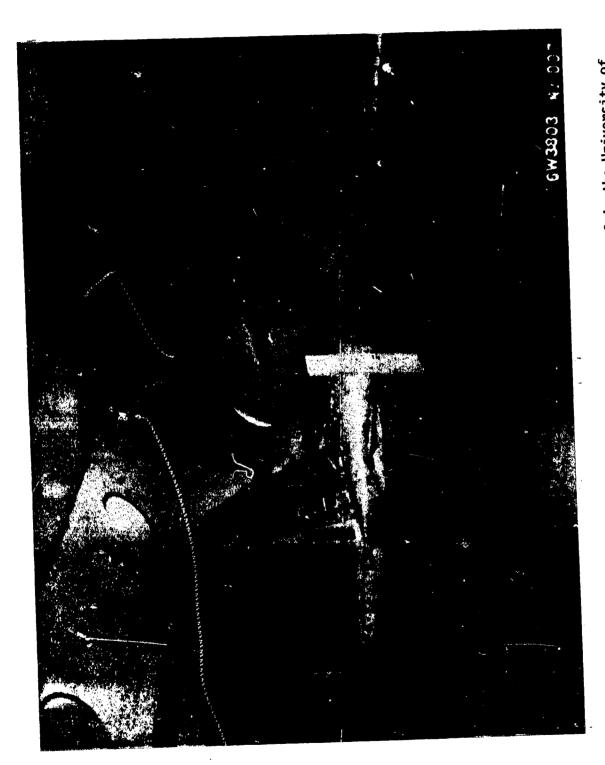
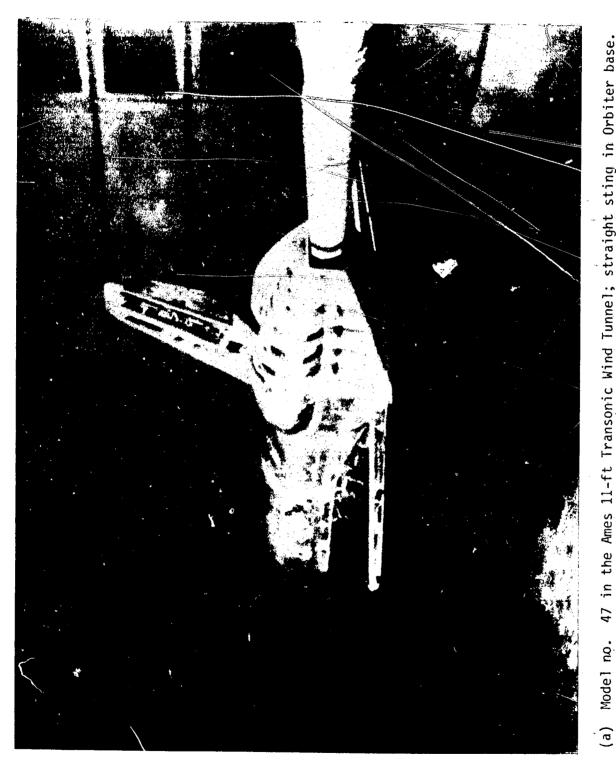


Figure 5.37. - Aeroelastic (tail) buffet test; model no.8 in the University of Washington Low-Speed Wind Tunnel.



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47 in the Ames 11-ft Transonic Wind Tunnel; straight sting in Orbiter base. - Tailcone testing for support interference. Figure 5.38. Model no.



(b) Model no. 47 in the Boeing Transonic Wind Tunnel; vertical i tail blade support.

l blade support. Figure 5.38. - Continued.

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(c) Model no. 47 in the Boeing Transonic Wind Tunnel; bottom blade support with dummy vertical tail blade support;

Figure 5,38 - Concluded.

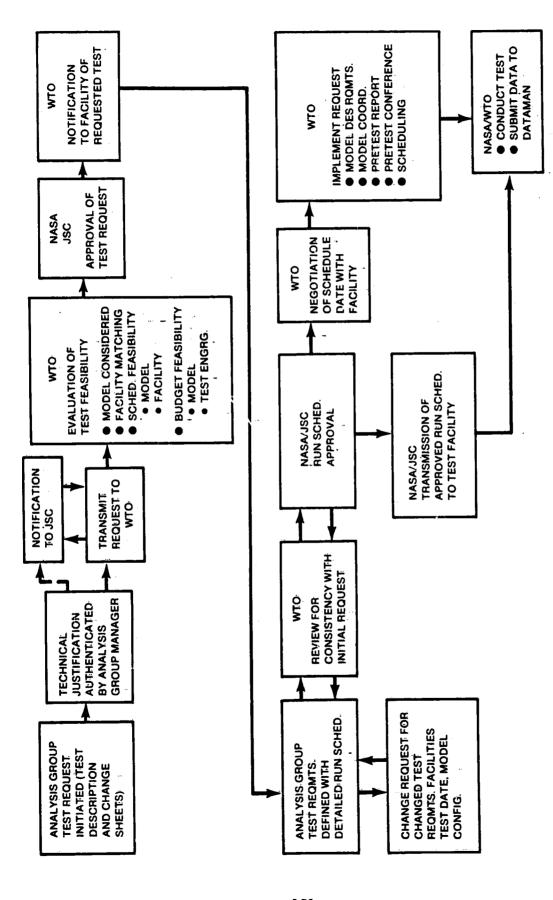
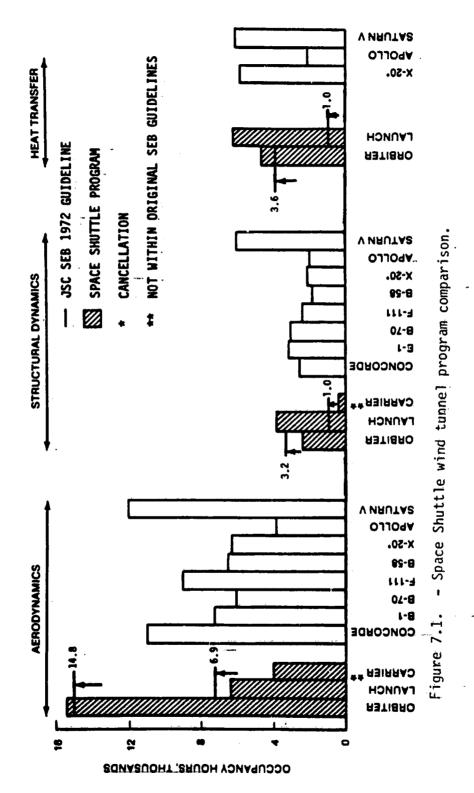


Figure 6.1. - Wind tunnel program management; test approval cycle.

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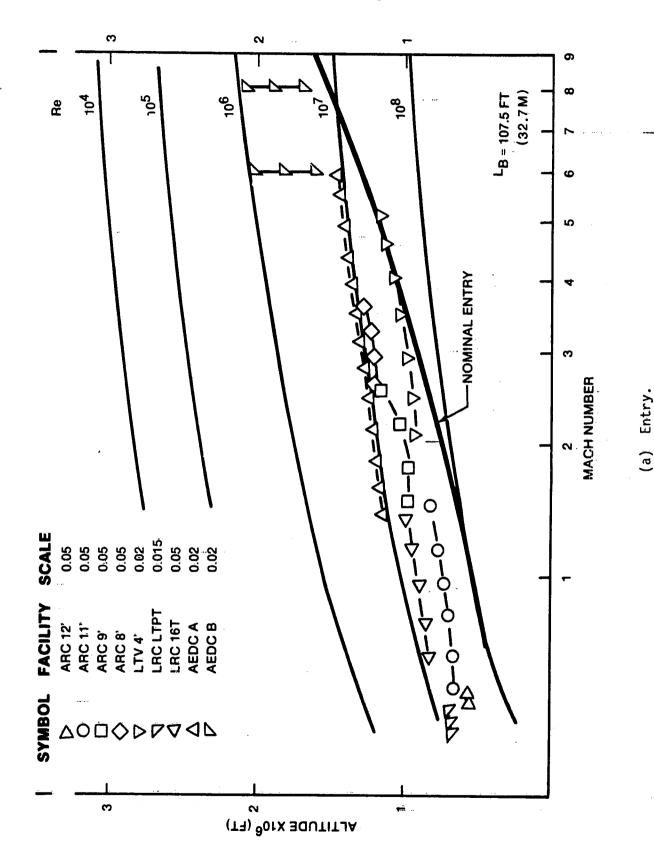
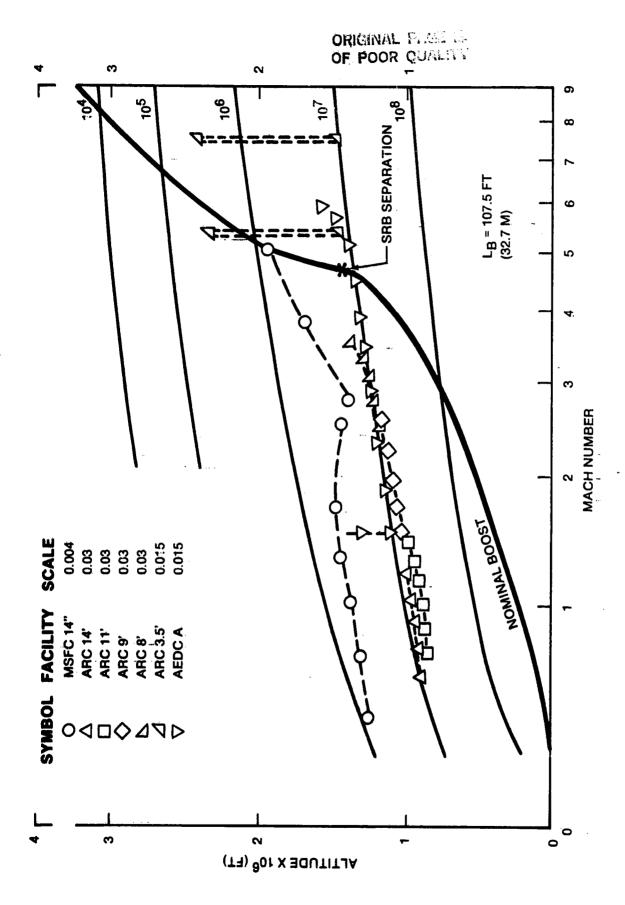
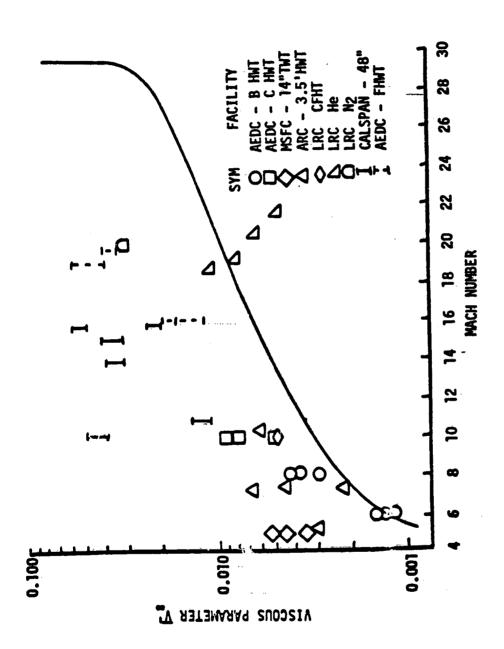


Figure 8.1. - Facility Reynolds number simulation capability.

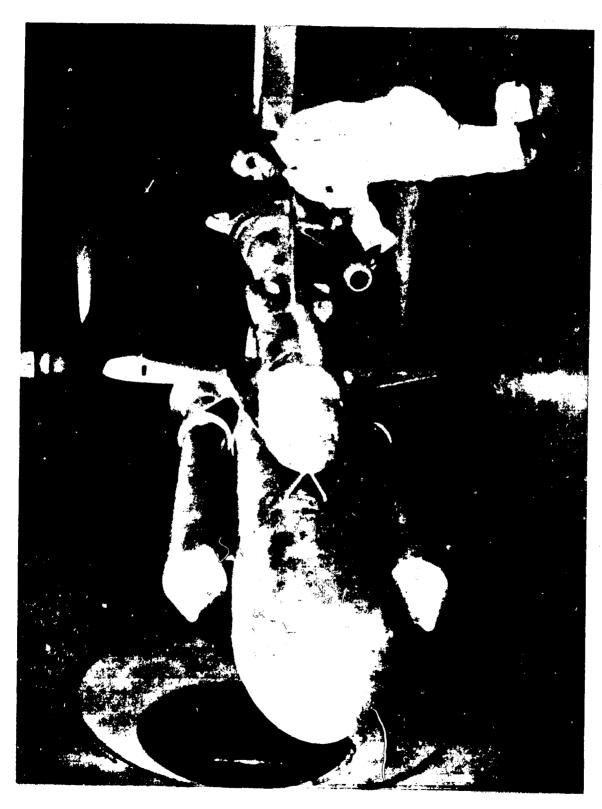


(b) Ascent.
Figure 8.1. - Concluded.



- Facility simulation capability in the hypersonic viscous regime. Figure 8.2.

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Model 11 (.040-scale) installed in the ARC 9 by 7-ft Wind Tunnel. - Contrast of model fidelity. (a·)

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(b) Model 84 (.035-scale) installed in the ARC 9 by 7-ft Wind Tunnel. Figure 9.1. - Continued.

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(c) Model 84 (.035-scale) installed in the LeRC 10 by 10-ft Wind Tunnel. Figure 9.1. - Continued.

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(d) Model 84 (.035-scale) installed in the LeRC 10 by 10-ft Wind Tunnel. Figure 9.1 - Concluded.

APPENDIX A

TABLES OF WIND TUNNEL TESTING BY TEST NUMBER, BY TEST FACILITY, AND BY MODEL NUMBER.

The test number definition, model reference (configuration) definition, and model ID listings are presented in the Chapters VII, III and IX respectively. A summary of the test number definitions is presented here for convenience:

First letter - 0 - Orbiter

- I -- Integrated Vehicle

- C - Carrier Aircraft

- T - External Tank

- S - Solid Rocket Booster -

- L - Langley Research Center

- A - Ames Research Center

- M - Johnson Space Center (formerly the Manned Spacecraft Center)

- F - Marshall Space Flight Center

Second Letter - A - Aerodynamics Tests

- H - Heating Tests

- S - Structural Dynamics Tests

Number - Chronological Test Order

TABLE A1 - WIND TUNNEL TESTING BY TEST NUMBER - AERODYNAMIC TESTS

TABLE A2 - WIND TUNNEL TESTING BY TEST NUMBER - HEATING TESTS

TABLE A3 - WIND TUNNEL TESTING BY TEST NUMBER - STRUCTURAL DYNAMICS TESTS

TABLE A4 - WIND TUNNEL TESTING BY FACILITY - NASA COMPLEXES

TABLE A5 - WIND TUNNEL TESTING BY FACILITY - OTHER GOVERNMENT COMPLEXES

TABLE A6 - WIND TUNNEL TESTING BY FACILITY - PRIVATE FACILITY COMPLEXES

TABLE A? - WIND TUNNEL TESTING BY FACILITY - SPACE SHUTTLE PRIME CONTRACTOR COMPLEX

TABLE A8 - WIND TUNNEL TESTING BY FACILITY - UNIVERSITY FACILITIES

TABLE A9 - WIND TUNNEL TESTING BY MODEL

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APPENDIX A

TABLE A1 - WIND TUNNEL TESTING BY TEST NUMBER - AERODYNAMIC TESTS

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TESTING COMPL	4 - 06*18*74	4 - 2+22+74	3 - 12*18*73	4 - 07*09*74	4 - 08*29*74	4 - 03*20*74	1 - 10+04+74	1 - 07*31*74	1 - 06+14+74	: - 04*26*74	- 06+25+74	- 09*06*74	- 09+10+74	- 10+23+74	- 05+30-78	- 04+30+78	- 12+22+78	- 07+15+78	- 03*26*74	- 11*11*74	- 04*02*77	- 05+03+77	- 04*20*77	- 12+07+78	5* 5*75 - 05*17*75
SCHED.	6*17*74	2+20+74	12+17+73	6+24+74	8+26+74	3.* 15.*74	8+10+74	7*29*74	6*10*74	4+24+74	6+17+74	8:+22 +74	9** 6*74	10-14-74	5* 1*78	4+17+78	12 - 8 - 78	7* 7*78	9+11+74	11+ 6+74	3* 8*77	4+15+77	4+ 6+77	11+28+78 -	5* 5*75
TEST NO.	DA 102	0A 105	0A 106	0A 108	DA 109	04110	OA 1 13	0A 1 15A	0A116	0A 1.18	0A 1:1:9A	DA 1.19B.	DA 123	0A 1:24	0A:126A	0A 126B	0A126C	0A 129	0A 1:3:1	DA 143	DA 145A	0A.1.4.5B	DA:145C	0A146	0A 148

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DOCUMENT NO. ST	2376	2370	2370	2237	2265	2247	2245	2245	2245	2289	2361	2499	2320	2433	2294	2304	2302	2333	2314	24 1.6	2415	2286	2360	2360	2402
NO.	115	115	115	£.	078	28A	094	094	094	751	788	473	D8A	1310	752	180	479	187	754	PSA	PSA	150	119	119	176
WIND TUNNEL FACILITY	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	LARC V/STOL	ARC 12-FT PRESSURE	AEDC F / HYPERSONIC	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW SPEED	ARC 40X80-FT SUBSONIC	AEDC B / HYPERSONIC	NSWC HYPERSONIC LAB (#9)	RI 7X11-FT LOW SPEED	ARC 12-FT PRESSURE	ARC 40X80-FT SUBSONIC	ARC 11-FT TRANSONIC	RI 7X11-FT LOW SPEED	AEDC B / HYPERSONIC	AEDC A / SUPERSONIC	ARC 14-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	RI 7X11-FT LOW SPEED
(ar)	(47)	(47)	(47)	(47)	(45)	(51)	(45)	(45)	(45)	(16)	(91-)	(92)	(70)	(105)	(43)	(45)	(76)	(47)	(43)	(105)	(105)	(21)	(66)	(66)	(68)
MODEL REF.	5/1400	5/1400	5/1400	4/140A,B (MOD)	140A,B/(ALT)	4/140A,B	140A,B (MDD)	140A,B (MOD)	140A,B (MOD)	4/140A.B	4/140A,B	0V101(ALT)	5/1400	VEH. 102	4/140A.B(ALT)	140C(ALT)	OV!O!(ALT)	140A,B (ALT)	4/140A,B(ALT)	VEH. 102	VEH. 102	VEH 101 (ADS)	ADS PROBES	ADS PROBES	V ЕН 102
RUNS	390	201	25	205	20	14	285	64	45	215	66	22	200	35	122	48	165	290	113	183	324	142	184		1 3
HOURS EST/CHG	160/ 144	40/ 168	40/ 144	80/ 152	160/ 152	12/ 12	140/ 160	24/ 30	20/ 22	160/ 144	35/ 35	80/ 80	12/ 43	180/ 180	120/ 210	160/ 256	240/ 264	160/ 240	60/ 83	52/ 47	69 /59	120/ 110	9/ /09	89 /09	40/88
TESTING SCHED. COMPL.	2*24*77 - 03*04*77	2* 2*77 - 02*07*77	2*16*77 - 02*18*77	2*10*75 - 03*07*75	6*23*75 - 07+08*75	2* 5*75 = 02*08*75	3*10*75 - 03*20*75	3*20*75 - 03*26*75	3*26*75 - 03*31*75	11*24*75 - 12*09*75	12*21*76 - 12*23*76	11*28*75 - 12*01*75	3*26*76 - 04*09*76	6* 5*78 - 06*22*78	12*15*75 - 01*13*76	3*15*76 - 03*26*76	2+ 2,476 - 02+27+76	6*28*76 - 07*09*76	3*29*76 - 04*15*76	3+30+78 - 04+06+78	3*21*78 - 03*30*78	11*11*75 - 11*21*75	11* 8*76 - 21*15*76	11*15*76 - 11*22*76	11*20*76 - 11*30*76
TEST NO.	0A 149A	0A149B	0A 149C	0A 155	0A 159	DA 160:	OA 16 1A	0A 16 1B.	DA 16 1C	DA 163A	OA 163B	0A 164	691-40 A-7	0A 17.1	0A172	DA 173	0Å 174	0A 175	DA 1.76	0A208	0A209	0A220	0A221B	0A221C	0A223

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NO.	312	757	431	042	759	500	764	775	282	282	382	574	1311	1319	+3 5 5	1358	352	8999	G E	\-	23 1. 13	.t. ((r)	427
WIND TUNNEL FACILITY	LARC 16-FT TRANSONIC	RI 7X11-FT LOW SPEED	AEDC 16-FT TRANSONIC	LERC 10X10-FT SI PERSONIC	RI 7X11-FT LOW SPEED	CO 40X80-FT SUBSONIC	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW SPEED	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	ARC 2X2-FT TRANSONIC	AEDC 16-FT TRANSONIC	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 16-FT TRANSONIC	LARC 20-IN HYPERSONIC (M=6)	APOC 8 / HYPERSONIC	ASON BOT HYPERSONIN	TAC TO PET TPANSCRIT	. ARC 16-FT TRANSONIG	CARC 18-FT TRANSONIC	ARC 11-FT TRANSONIO
(10)	(57)	(57)	(66)	(66)	(66)	(66)	(66)	(45)	(66)	(66)	(101)	(84)	(02)	(02)	(07)	(07)	(20)	12.1	: 90,)	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	÷	G.	- Si - Ci	
RUNS MODEL REF.	25 VEH 102 (ADS)	45 VEH 102 (ADS)	81 ADS PROBES	63 ADS PROBES	4 ADS PROBES	2 ADS PROBES	7 ADS PROBES	3 140C(ALT)	90 ADS PROBES	6 ADS PROBES	O TILE	9 5/140C	3 0V102	0 0V 102	7 00 102	0 0 102	0 0 1 0 2) NEW 102	20 × 100			es E	20. 1.47	37.400
			C4		7 204	32	57	23		96		139	263	90	27	100	O	380	L	15	10	f) (1)	<u>0</u>	ς. 8
HOURS EST/CHG	80/304	16/ 23	80/ 80	30/ 80	10/ 37	90/ 60	24/ 48	32/ 34	40/ 8C	40/ 72	096 /096	80/ 80	240/ 228	240/ 160	240/ 140	240/ 132	30/ 32	80/ 324	6)	S.	8	3 8 - 26	21 23	20 20
TESTING SCHED. COMPL.	2*23*76 - 03*24*76	5+29+76 - 05+01+76	2+17+78 - 03-01+78	6* 7*77 - 08*11*77	\$-28-75 - 06-02-76	·24*77 = 01*31*77	10*25+76 - 11*08+76	7-1-17 - 07-77	4*17*78 - 04*23*78	5 *29 * 78 = 06 * 15 * 78	10+16+79 - 11+14+79	7* 1*80 - 07*08*80	10+13+80 - 11+07+80	1*12*81 - 02*02*81	11+24+80 - 12+15+80	11* 8*80 - 11*21*80	10 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	18-03-30 - 38-00-8	er er er er er er er			Critical Cri	100 to 10	08-20-90 - 08-80+
TEST NO:	0A224	0A228	DA232	DA 234	CA236	CA237	0A238	0A250	0A251B	0A251C	04252	0 A 253	0A255A	0A255D	0A255C	OA255B	೦೩೭೯೯	19570	u' cy		1 × · · · · · · · · · · · · · · · · · ·	B1	C3 C4 C5 C5 C5 C5 C5 C5 C5 C5 C5 C5 C5 C5 C5	24400

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Ö	556	545	616	693	458	571	686	711	707	101	707	169	710	710	323	716	716	175	180	422	422	191	4.0	59A	9
TUNNEL																									
FACILITY	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	ARC 9X7~FT SUPERSONIC	RI 7X11-FT LOW SPEED	LTV 4X4-FT SUPERSONIC	MSFC 14-IN TRANSONIC	ARC 11-FT TRANSONIC	ARC 14-FT TRANSONIC	ARC 11-FT TRANSONIC	49C 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	AEDC A / SUPERSONIC	ARC 11-FT TRANSONIC	ARC 9X7-FI SUPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 11-FT TRANSONIC	AEDC B / HYPERSONIC	ARC 6X6-FT SUPERSONIC
(ID) F	() R	(T)	(7) AI	(10) R	.7 (6)	(13) M	(<u>7</u>) AF	(e) AF	(17) AF	(17) AS	(17) AF	(32) AF	(14) AF	(14) AF	(32) AE	(47) AR	(47) AR	(32) AR	(36) AR	(52) AE	(52) AE	(52) AR	(88) AR	(70) AE	(36) AR
MODEL Ref.	AIP	АтР	PRE-ATP/001	PRE-ATP/001	PRE-ATP/001	2A/089B	PRE-ATP/001	ATP	2A/089B	2A/089B	2A/089B	3/1398	2A/089B(MOD)	2A/089(MOD)	3/139B	4/140A,B	4/140A.B	3/139B	4/140A.B	3/1398	3/1398	3/139B	5/1400	5/1400	4/140A.B
RUNS	179	36.1	92	53	62	94	85	54	118	65	102	8	63	133	762	149	99	25	Ó	266	6	5 ê	201	750	111
HOURS EST/CHG	56/84	150/ 257	40/ 244	24/ 41	80/ 75	45/ 52	80/ 160	80/ 160	90/ 113	100/ 120	09 /09	50/ 40	120/ 156	220/ 220	40/ 39	130/ 151	48/ 41	64/80	80/ 52	40/ 45	8 /8	60/ 64	156/ 136	52/ 49	80/ 184
TESTING SCHED: COMPL.	10+10+72 - 10+19+72	10*19*72 - 11*28*72	10*11*72 - 11*03*72	11+ 3+72 - 11+16+72	11* 2*72 - 11*17*72	4+30+73 - 05+03+73	2*12*73 - 02*23*73	2*12*73 - 03*12*73	4* 2*73 - 04*14*73	5* 2*73 - 05*09*73	4*22*73 - 05*01*73	8* 1*73 - 08*03*73	4*23*73 - 05*07*73	7*11*73 - 07*27*73	7* 5*73 - 07*17*73	9* 4*73 - 09*13*73	9*14*73 - 09*19*73	10+10+73 - 10+16+73	11-17-73 - 12-04-73	3* 6*74 - 03*15*74	3*18*74 - 03*19*74	4* 9*74 - 04* 2*74	9*16*74 - 09*23*74	* 3*76 - 05*08*76	9*12*73 - 09*25*73
TEST NO. SC	IA1A 1C	IA18. 10	IA2 10	IA3 tr	IA4 11	IA6 4	IA.7 2	148 2	IA9A. 4	IA9B 5	IA9C 4	IA:10 8	IA 12B 4	1A12C 7	IA.13 7	IA:14A 9	IA14B 9	IA:15 10	IA:16 11	IA.174. 3	IA+7B. 3	IA18 4	1A19A 9	IA22: 5.	IA29 9
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TEST NO.	TESTING SCHED. 1 CO	STING 1 COMPL.	HOURS EST/CHG	URS	RUNS	MODEL REF.	(ID)	WIND TUNNEL FACILITY	VEL. NO.	DOCUMENT NO. S	NT ST ATUS
IA31FA	4* 9*73 -	4* 9*73 - 04*13*73	/09	09 /09	104	2A/089B	(13)	MSFC 14-IN TRANSONIC	266	2026	PUBLISHED
IA31FB	4+13+73	4+13+73 - 04+30+73	50/ 271	27.1	220	2A/089B	(13)	MSFC 14-IN TRANSONIC	570	2028	PUBLISHED
IA31FC	6*21*73 -	6*21*73 - 07*09*73	32/	51	145	2A/089B	(13)	MSFC 14-IN TRANSONIC	573	2072	PUBLISHED
IA32F	5* 9*73 -	5* 9*73 - 05*24*73	100/ 180	180	190	2A/089B	(13)	MSFC 14-IN TRANSONIC	567	2027	PUBLISHED
1433	5+ 9+74 -	5* 9*74 - 07*21*74	256/ 264	264	270	5/140C	(74)	MSFC 14-IN TRANSONIC	594	2174	PUBL I SHED
IA35	11* 1*73 - 11*02*73	11+02+73	/09	30	22	4/140A.B	(96)	LARC UNITARY PLAN	1063	2108	PUBL I SHED
IA36	6*15*73 - 06*22*73	06*22*73	/09	8 .	120	2A/089(MOD)	(14)	CALSPAN 8-FT TRANSONIC	053	2064	PUBLISHED
IA37A	7*10*73 - 07*13*73	07*13*73	/09	36		3A/139B	(34)	MSFC 14-IN TRANSONIC	579	2063	PUBL I SHED
IA37B	10+15+73 - 10+16+73	10*16*73	16/	22	.4	3A/139B	(34)	MSFC 14-IN TRANSONIC	585	2093	PUBL I SHED
IA40	6*23*76 - 06*29*76	06*29*76	797	4	346	5/140c	(75)	AEDC A / SUPERSONIC	425	2293	PUBL I SHED
IA41	12*11*73 - 12*14*73	12*14*73	/08	. 64	86	4/140A,B	(67)	LARC 8-FT TRANSONIC PRESSURE	SURE 667	2118	PUBLISHED
IA42A	11*27*73 - 12*04*73	12*04*73	40/	70	. 62	4/140A,B	(67)	LARC UNITARY PLAN	1056	2119	PUBLISHED
IA42B	12*17*73 - 12*21*73	12*21*73	/09	20	. 42	4/140A,B	(67)	LARC UNITARY PLAN	1073	2119	PUBL I SHED
IA43	8*26*74 - 09*03*74	09*03*74	, 80/	80	105	4/140A.B	(72)	LARC 8-FT TRANSONIC PRESSURE	SURE 693	2204	PUBLISHED
IA44A	8*12*74 - 08*16*74	08 * 16 * 74	40/	20	27	4/140A.B	(72)	LARC UNITARY PLAN	1088	2206	PUBLISHED
IA44B	8*19*74 - 08*23*74	08*23*74	40/	80	47	4/140A.B	(72)	LARC UNITARY PLAN	1119	2206	PUBLISHED
1A48	7*18*73 - 07*21*73	07*21*73	20/	4	9	3A/139B	(34)	MSFC 14-IN TRANSONIC	580	2063	PUBL I SHED
IA52	10*11*73 - 10*17*73	10*17*73	16/	28	27	3A/139B	(34)	MSFC 14-IN TRANSONIC	584	2042	PUBL I SHED
IA53	12*20*73 - 01*04*74	01*04*74	40/	36	45	2A/089B	(13)	MSFC 14-IN TRANSONIC	588	2123	PUBLISHED
IAST	11*20*73 - 11*20*73	11*20*73	, 0 1	6	5	3/139.089B	(35)	AEDC A / SUPERSONIC	422	2112	PUBL I SHED
IA58	2*11*74 - 02*13*74	02*13*74	32/	40	34	3/139,089B	(35)	LARC 31-IN CONT-FLOW HYP.	. 107	2133	PUBLISHED
IAGO	2*14*74 - 02*20*74	02*20*74	15/	36	22	3/139,089B	(35)	LARC 31-IN CONT-FLOW HYP.	. 108	2137	PUBLISHED
IA61A	1*30*; - 01*31*74	01*31*74	10/	5	88	3/139,089B	(35)	AEDC A / SUPERSONIC	422	2143	PUBLISHED
IA61B	2*26*74 - 02*26*74	02*26*74	8/	€.	6	3/139,089B	(52)	AEDC A / SUPERSONIC	21AA	2226	PUBLISHED
IA62F	11*15*73 - 11*19*73	11*19*73	16/		33	4/140A.B	(34)	MSFC 14-IN TRANSONIC	589	2103	PUBLISHED

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NO.	- 581	280	282	610	610	610	6 10	072	023	019	019	044	044	60A	749	1152	1177	470	242	27	052	052	A3A	C4A	275	•
WIND TUNNEL FACILITY	RI 7-FT TRISONIC	RI 7-FT TRISONIC	RI 7-FT TRISONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	AEDC A / SUPERSONIC	LARC 8-FT TRANSONIC PRESSURE	LARC UNITARY PLAN	LARC UNITARY PLAN	AEDC 16-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	MSFC IMPULSE BASE FLOW FAC.	ARC 9X7-FT SUPERSONIC	ARC 9X7-FT SUPERSONIC	AEDC A / SUPERSONIC	AEDC B / HYPERSONIC	ARC 11-FT TRANSONIC	-
(ID)	(13)	(67)	(49)	(77)	(74)	(77)	(74)	(88)	(88)	(47)	(47)	(75)	(75)	(52)	(72)	(72)	(72)	(47)	(47)	(25)	(49)	(67)	(52)	(52)	(88)	
RUNS MODEL Ref.	34 2A/089B	14 4/140A.B	173 4/140A.B	40 5/140C	29 5/140C	90 5/1400	41 5/140C	176 5/140C	380 5/140C	99 4/140A,B (MOD)	88 4/140A,B (MOD)	286 5/140C	240 5/140C	90 3/139B	255 5/140C	92 5/1400	144 5/140C	885 5/140C	143 5/140C	19 2A/089B	79 4/140A,B	17 4/140A.B	1475 3/139B	100 5/1400	620 5/140C	
RS HG	36	25	161	9	17	- 4 9.	16	200	144	184	208	132	- 8	23	96	9	84	281	258	<u>5</u>	9	50	. 8	56	285	
HOURS EST/CHG	32/	24/	/08	20/	20/	40/	16/	120/	100/	84/ 184	60/ 208	70/ 132	/08	24/	80/	40/	80/	790/	100/ 258	40/ 100	20/	30/	36/	42/	170/	
TESTING SCHED. COMPL.	1*18*74 - 01*29*74	1*10*74 - 01*14*75	5* 3*74 - 05*24*74	12+11+74 - 12+17+74	12+11+74 - 12+17+74	12+19+74 - 01+09+75	12+19+74 - 01+09+75	5*19*75 - 05*31*75	11* 4*74 - 11*08*74	7*26*74 - 08*27*74	8+ 9+74 - 08+22+74	1*28*75 - 02*04*75	11*11*74 - 11*15*74	7*18*74 - 07*20*74	5*10*76 - 05*14*76	4*18*76 - 04*23*76	4*26*76 - 05*04*76	9* 2*77 - 11*20*77	1* 9*78 - 02*01*78	7*26*70 - 8* 8*74	7* 8*74 - 07*11*74	7* 8*74 - 07*11*74	3*21*75 - 03*28*75	8*18*75 - 08*22*75	10* 7*77 - 10*31*77	
TEST NO.	IA68	1469	1A70	1A71A-1	IA71A-2	IA718-1	IA71B-2	IA72	IA80	IA81A	IA81B	1A82B	IA82C	IA87	1493	IA94A	1A948	1A 105A	IA 1058	IA 109	IA110-1	1A110-2	IA111	IA114	IA1.19	

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DOCUMENT NO. ST	2253	2253	2462	2462	2449	2306	2306	2306	2316	2438	2335	2335	2315	2346	2354	2377	2384	2403	2408	2457	2406	2439	2444	2456	2476
O	622	622	283	283	505	144	144	144	143	246	641	646	297	K1A	P8A	228	TOA	470	272	1267	649	517	519	347	4 1 ~
FACILITY WIND TUNNEL	WSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	AEDC 16-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	ARC 14-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	RI 7-FT TRISONIC	AEDC A / SUPERSONIC	AEDC A / SUPERSONIC	ARC 11-FT TRANSONIC	AEDC B / HYPERSONIC	AEDC 16-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	LARC UNITARY PLAN	MSFC 14-IN TRANSONIC	AEDC 16-FT TRANSONIC	AEDC 16-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 11-FT TRANSONIC
(31)	(74)	(77)	(89)	(89)	(89)	(47)	(47)	(47)	(89)	(75)	(74)	(74)	(72)	(75)	(75)	(72)	(0/2)	(88)	(68)	(89)	(74)	(47)	(68)	(47)	(47)
S MODEL Ref.	5/140C	5/140C(74TS)	ET FORETANK	ET FORETANK	ET FORETANK	4/140A.B (MOD)	4/140A,B (MDD)	4/140A,B (MOD)	ET FORETANK	5/1400	5/1400	5/1400	5/1400	5/1400	5/1400	5/140C	5/1400	VEH 102	VEH 102	ET FORETANK	5/140C	5/140C	VEH 102	5/140C	5/1400
RUNS	137	20	0	0	•	132	50	រេ	43	224	230	4	37	1900	2442	514	272	575	177	37	111	87	4	115	166
HOURS EST/CHG	60/ 93	40/ 30	48/ 40	48/ 40	96 /96	120/ 146	60/ 100	20/ 40	40/56	70/ 112	64/ 222	80/ 279	30/ 30	78/ 64	65/ 58	160/ 200	52/ 52	96/ 124	100/ 191	48/ 53	120/ 120	12/ 24	12/ 12	24/ 40	160/ 168
TESTING SCHED. COMPL.	- 05*22*75	- 05*22*75	- 11+09+78	3* 5*79 - 03*11*79	11+27+78 - 12+14+78	3* 2*76 - 03*23*76	3* 5*76 - 03*23*76	3*12*76 - 03*23*76	4*26*76 - 05*03*76	8+21+78 - 09+01+78	6* 1*76 - 08*03*76	10* 1*76 - 01*28*77	3*31*76 - 04*05*76	8*11*76 - 08*18*76	11*13*76	- 04*15*77	4*27*77 - 05*03*77	- 11*10*77	12*16*77 - 01*06*78	- 03*30*79	12*15*77 - 02*03*78	- 09*20*78	11+16+78	4* 2*79 - 04*13*79	2* 7*80 - 02*21*80
TE SCHED.	4*25*75	4*25*75	11* 3*78	3* 5*79	11+27+78	3* 2*76	3* 5*76	3+12+76	4*26*76	8+21+78	6* 1*76	10* 1*76	3*31*76	8+11+76	11* 8*76	4* 6*77	4+27+77	10*28*77	12+16+77	3*26*79	12+15+77	9*19*78	11+15+78	4* 2*79 -	2+ 7+80
TEST NO.	IA125-1	IA125-2	IA1318	IA131C	IA 132	IA135A	IA 135B	FA 135C	IA137	IA 138	IA140A	IA140B	IA141	IA142	IA143	1A144	IA148	IA156A	IA156B	IA180	IA181	IA 182	IA183	IA184	1A 190A
												A	12												

DOCUMENT NO. ST ATUS	2476 IN PROCESS	2378 PUBLISHED	UNASSIGNED	PUBLISHED
DOCUMEN NO.	2476	2378		2391
NO.	411	412	A 1G	779
ID TUNNEL	ERSONIC	SONIC	SONIC	(72) LARC 8-FT TRANSONIC PRESSURE
MIND	T SUP	TRAN	SUPER	TRAN
(ID) FACILITY	ARC 9X7-FT SUPERSONIC	ARC 11-FT TRANSONIC	AEDC A / SUPERSONIC	LARC 8-FT
(ar)	(47) A	(112)	(72)	(72)
MODEL REF.	294 5/140C	O FUEL LINE	O VEH 102	54 5/1400
RUNS	294	0	Ö	154
RS FG	104	6	720	76
HOURS EST/CHG	120/ 104	40/ 40	72/ 720	80/ 76
TING COMPL.	5*20*80 - 02*21*80	6*20*80 - 06*27*80	2*26*82 - 04*31*82	5*24*77 - 06*01*77
TESTING SCHED. COMPL.	5*20*80 -	6*20*80	2*26*82 -	5+24+77 -
TEST NO.	IA 1.90B	IA 191	IA 193	1A244

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1984	DOCUMENT STATUS	UNASSIGNED	UNASŠIGNED	UNASSIGNED	PUBL I SHED	i UNASSIGNED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I ŚHED	UNASSIGNED	PUBLIŚHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBLISHED	UNASSIGNED	UNASSIGNED	UNASSIGNED
AUG 01, 1984	- O				2201		2211	2262	2290	2268	2236	2332	2307	2347	2348	•	2349	2217	2243	2275	2273	,		
	8				1136	1128	1431	1472	129	1477	1146	121	1496	1173	1178	7515	1184	1431	085	085	559	132	365	120
TEST NUMBER	WIND TUNNEL	LOCKHEED (GA) - LOW SPEED	LOCKHEED (GA) - LOW SPEED	LOCKHEED (GA) - LOW SPEED	UNIV. OF WASH. LOW SPEED	UNIV. OF WASH. LOW SPEED	THE BOEING CO TRANSONIC	THE BDEING CO TRANSONIC	LARC V/STOL	THE BOEING CO TRANSONIC	UNIV. OF WASH. LOW SPEED	ARC 14-FT TRANSONIC	THE BOEING CO TRANSONIC	UNIV. OF WASH. LOW SPEED	UNIV. OF WASH. LOW SPEED	TEXAS A+M 7X10-FT LOW SPEED	UNIV. OF WASH. LOW SPEED	THE BOEING CO TRANSONIC	ARC 14-FT TRANSONIC	ARC 14-FT TRANSONIC	LTV 4X4-FT SUPERSONIC	THE BOEING CO V/STOL	LOCKHEED (CA) - LOW SPEED	LOCKHEED (GA) - V/STOL
ESTING PER	(ID) FA	(399) 10	(43) 10	(366)	(43) UN	(43) UN	(45) THE	(45) THE	(43) LAF	(47) THE	(O)	45) ARC	45) THE	43) UNI	43) UNI	45) TEX	43) UNI	45) THE	48) ARC	48) ARC	48) LTV	2) THE	2) LOC	2) LOCI
C/D SSV WIND TUNNEL TESTING PER TEST NUMBER	MODEL Ref.	ET/C-5A	4/140A,B/C-5A	ET/C-5Å	4/140A,B/747	4/140A,B/747	140A,B/747	140A.B/747	4/140A.B/747	4/140A.B/747	ET/747	140C(ALT)/747	140A,B/747	4/140A.B/747	4/140A,B/747	:40A,B/747	4/140A,B/747	140A.B/747	14OC(MOD)/747	140C(tt0D)/747	140C(MOD)/747 (0898/747 (089B/C-5A	089B/C-5A
	RUNS	50	8	64	194	8	520	509	536	82.	120	54	850	379	6	9	261	288	7.1	46	131	114	č.	208
PHASE	HOURS EST/CHG	40/ 56	120/ 80	40/ 40	120/ 131	64/ 120	144/ 181	200/ 265	200/ 324	320/ 302	100/ 116	160/ 193	160/ 236	240/ 239	75/ 110	72/ 84	152/ 152	115/ 115	120/ 213	160/ 132	94/ 95	80/ 97	24/ 24	160/ 165
	TESTING SCHED. COMPL.	5*30*74 - 06*04*74	6* 4*74 - 06*10*74	6*11*74 - 06*23*74	8*15*74 - 08*30*74	5*28*74 - 06*07*74	9*20*74 - 09*30*74	5*20*75 7 06*06*75	8*18*75 - 09*12*75	6*25*75 - 07*14*75	2*12*75 - 02*20*75	6* 8*76 - 07*01*76	11+13+75 - 12+02+75	10*16*75 - 11*01*75	11*19*75 - 11*26*75	8*23*75 - 09+05*75	6*21*76 - 07*02*76	10* 9*74 - 10*15*74	3+21+75 - 04+17+75	5* 1*75 - 07*22*75	8* 4*75 - 08*15*75	11*27*73 - 12*04*73	11*26*73 - 11*28*73	12*13*73 - 01*21*74
	TEST NO.	CA 1	CA2-1	CA2-2	CA3.	CA4	CAS	CA6	CA8	CA9	CA11	A-CA 13	74 14	CA 15A	CA 15B.	CA 16	CA-17	CA20	CA23A	CA23B	CA26	CA92	CA 103	CA 104

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1984	DOCUMENT STATUS	PUBLISHED	PUBL ISHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	UNASSIGNED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISPED	PUBL I SHED	PUBLISHED	PUBLISHED	•
AUG 01, 1984	NG. DC	2012	2088	2088	2025	2051	2161	2223		2087	2331	2331	2331	2277	2325	2310	2334	2345	2150	2111	2111	2244	2244	2207	2235	2369	
	NO.	554	655	662	565	572	035	604	243	578	074	074	07.4	034	620	640	445	645	1087	590	595	603	603	033	611	620	
	TUNNEL) IC	P STRUCTURE	C PRESSURE	DI.	2	SONIC	2	ñ	Ç.		41°C	JI.C	(HIGH RN)	Ç.	ڽ		U		Ų	ن	ပ	v	EG	U .	(HIGH RN)	
VUMBER	MIN	14-IN TRANSONIC	8-FT HIGH-TEMP	8-FT TRANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	10X10-FT SUPERSONIC	14-IN TRANSONIC	LARC 16-FT TRANSONIC	14-IN TRANSONIC	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	MSFC 32-IN LUDWIEG (HIGH RN)	14-IN TRANSONIC	MSFC 14-IN TRANSONIC	4-FT TRANSONIC	14-IN TRANSONIC	ARY PLAN	14-IN TRANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	CALSPAN 32-IN LUDWIEG	MSFC 14-IN TRANSONIC	32-IN LUDWIEG (HIGH RN)	
PER TEST	FACILITY	MSFC 14-1	LARC 8-F	LARC 8-F1	MSFC 14-]	MSFC 14-1	LERC 10X1	MSFC 14-1	LARC 16-F	MSFC 14-1	ARC 11-FT	ARC 9X7-F	ARC 8X7-F	MSFC 32-I	MSFC 14-I	MSFC 14-I	AEDC 4-FT	MSFC 14-1	LARC UNITARY PLAN	MSFC 14-1	MSFC 14-1	MSFC 14-I	MSFC 14-I	CALSPAN 3	MSFC 14-II	MSFC 32-1	
TESTING	(1D)	÷	(454)	(454)	(448)	(448)	(454):	(471)	(o)	(449)	(483)	(483)	(483)	(461)	(448)	(486)	(486)	(486)	(454)	(448)	(449)	(468)	(469)	(467)	(473)	(487)	
PHASE C/D SSV WIND TUNNEL TESTING PER TEST NUMBER	MODEL	SRB							SRB/DROGUE															FORE BODY			
1 SSV 1	REF	PRR/SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB/D	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB F	SRB	SRB	
SE C/E	RUNS	200	176	9	26.1	101	0	. 0	Ó	200		0	6	Ο.	200	8	б	200	16	8	20	500	160	0	185	0	
PHA	HOURS EST/CHG	160/ 144	60/ 176	60/52	160/ 164	45/52	120/ 208	160/ 250	150/ 256	112/ 128	200/ 193	120/ 84	120/ 156	100/ 100	140/ 144	48/ 549	8 /8	56/ 120	40/ 30	63/ 63	16/ 13	80/ 102	40/ 50	120/ 120	80/ 72	80/ 80	
	TESTING SCHED. COMPL.	12* 9*72 - 12*23*72	7*24*73 - 08*07*73	9*24*73 - 09*28*73	2*20*73 - 03*20*73	5* 3*73 - 05*08*73	12* 3+73 = 01*16*74	10*18*74 - 12*10*74	7* 8*74 - 07*29*74	9*13*73 - 10*01*73	4*14*76 - 04*26*76	4*25*76 - 05*07*76	3*29*76 - 04*14*76	9*30*74 - 06*17*75	12*23*75 - 03*19*76	1* 6*76 - 03*11*76	5* 5*76 - 05*06*76	9*16*76 - 10*06*76	3* 4*74 - 03*11*74	11*19*73 - 12*11*73	1*28*74 - 01*30*74	3*17*75 - 04*11*75	3*17*75 - 04*11*75	8* 8*74 - 09*18*74	3* 3*75 - 03*13*75	4*27*76 - 02*01*77	
	TEST NO.	SATE	SAZFA	SAZFB	SA3F	SASF	SAGE	SARF	SA9F	SA 10F	SATIFA	SA11FB	SATIFC	SA13F	SA14FA 1	SAT4FB	SA 16F	SA21F	SAZSE	SA26FA 1	SA26FB	SA28F-1	SA28F-2	SA29F	SA30F	SA31F	

A-15

DDCUMENT NO. ST ATUS	UNASSIGNED	UNASSIGNED
Q.	275	190
TUNNEL		(O) LOCKHEED (GA) - LOW SPEED
WIND	T TRANS	- (BA)
(ID) FACILITY	LARC 16-F	LOCKHEED
(ID)	6	60
MODEL		
S REF.	SRB	SRB
RUNS	94	0
HOURS EST/CHG	150/ 150	90
H EST,	150,	32/
TESTING COMPL.	3*22*76 - 04*02*76	3*23*76 - 09*27*76
TES SCHED.	3+22+76 -	9*23*76 -
. TEST	SA32F	SA38F

			₫	PHASE C/C	NSS C	VIND TUNNEL	. TESTING	C/D SSV WIND TUNNEL TESTING PER TEST NUMBER	æ:		-	AUG 01, 1984	1984	
TEST NO.	TEST. SCHED.	TESTING CGMPL.	HOURS EST/CHG	RUNS	REF.	MODEL	(ID)	FACILITY	WIND T	TUNNEL	Ö	NO ON	DOCUMENT NO. STATUS	
7A 1F	2*19*74	2*19*74 - 03*05*74	56/ 64	0	ET		(459)	MSFC 14-IN TRANSONIC	ANSONIC		 583	2145	2145 PURITCHED	
TA2F	4*29*74	4*29*74 - 09*23*74	104/ 104	0	ĖŢ	• • •	(460)	MSFC 14-IN TRANSONIC	ANSONIC		596	2	2165 DUBLICHED	
TABE	9*27*74	9*27*74 - 10*11*74	64/80	0	ET		(470)	MSFC 14-IN TRANSONIC	ANSONIC		609	2.00 220B	PLEAT IS HED	
TAGF	8- 4*76	£* 4*76 - 08*20*76	40/ 80		O E. INST.	ST.	(î) ()		ANSONIC		643			
TA9F	6* 3*74	6* 3*74 - 06*15*74	128/ 144	0	ET		(466)	ARC 3.5-FT HYPERSONIC	PERSONIC		9 40	, 0		
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OF	POOR	QU/

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1984	DDCUMENT STATUS	PUBLISHED				UNASSIGNED	PUBL I SHED	UNASSIGNED	PUBL I SHED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	PUBLISHED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	PUBL I SHED	UNASSIGNED	UNASSIGNED	PUBL I SHED	PUBL I SHED	PUBL I SHED	IN PROCESS
AUG 01, 1984	ON ON	2004	2003	2008	2001		2069		2011			× 98		2283						2267			2451	2507	2507	2497
	Ň	407	409	089	1002	156	1031	MAB	558	575	586	031	028	422	363	600	324	295	702	118	7513	KBA	K7A	510	510	594
	TUNNEL	SPEED	_	LOW HYP.		DNIC		LOW SPEED	NIC	NIC	NIC	G (HIGH RN)	•	SPEED	OW SPEED	- <u>ບ</u>	9	JIC .	110	OW HYP.	LOW SPEED		- ບ	U	NIC	10
SSV WIND TUNNEL TESTING PER TEST NUMBER	FACILITY	LTV 15X20-FT LOW SPEED	LARC 22-IN HELIUM	LARC 31-IN CONT-FLOW HYP.	LARC UNITARY PLAN	ARC 3.5-FT HYPERSONIC	LARC UNITARY PLAN	TEXAS A+M 7X10-FT LOW	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 32-IN LUDWIEG (HIGH RN)	ARC 12-FT PRESSURE	LTV 15X20-FT LOW SPEED	LOCKHEED (CA) - LOW SPEED	ARC 11-FT TRANSONIC	GRUMMAN - LOW SPEED	LARC 16-FT TRANSONIC	JPL 20-IN SUPERSONIC	LARC 31-IN CONT-FLOW HYP	IEXAS A+M 7X10-FT LOW SPEED	AEDC A / SUPERSONIC	AEDC B / HYPERSONIC	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	AEDC 16-FT TRANSONIC
TESTING	(aI)	,	(1.1)	ô	(01)	(27)	(9)	(62)	(f.)	(0)	(o)	(o)	6	(62)	(2)	60	(o)	(0)	(34)	(32)	(2)	(9)	(6)	(106)	(106)	(66)
SSV WIND TUNNEL	HODEL REF;	USC 040A DRB.	ATP	RI ATP ORBITER	PRE-ATP/001	RI PRR ORB.	2A/089B	USC 040A DRB.	ATP	OGIVE CYL	OGIVE CYL	OGIVE CYL	GULFSTREAM 2	2A/089B(CAN)	039B/C-5A	GULFSTREAM 2	GULFSTREAM 2	GULFSTREAM 2	5/1400	4/140A,B	2A/089B(MOD)	2A/089B	SEMISPAN	VEH 102	VEH 102	ADS PROBES
SE C/D	RUNS	120	31	12	30	4	18	40	132	. 0	0	0	С	103	106	0	254	36	20	357	500	o	0	0	0	0
PHASE	RS CHG	80	80	16	9	136	50	9	75	305	80/ 102	80/ 328	176	62	26	152	200	144	93	168	176	-	7	144	96	9
	HOURS EST/CHG	80/	40/	16/	80/	120/	50/	40/	74/	160/ 305	80/	80/	120/	8C/	40/	120/	200/200	120/ 144	80/	100/ 168	24/ 176	12	//	80/	Q	40/
	TESTING COMPL.	. 09*06*72	- 11*06*72	- 10*02*72	- 09*25*72	- 04*26*73	05*18*73	01+27+73	- 12*07*72	7*23*73 - 09*12*73	- 01+18+74	02*04*74	- 05+03+74	05+02+73	10+12+73	04*22*74	- 06*22*74	- 09*12*74	09*04*75	- 06*03*75	- 08*11*75	09*29*76	10+14+46	- 04*30*82	- 05*21*82	C3*20*81
	TEST SCHED.	8*25*72	9*18*72	10* 1*72 -	9+15+72 -	4* 2*73 -	5+14+73 -	12+15+72 -	11*29*72 -	7*23*73 -	1+ 3+74 -	10* 1*73 - 02*04*74	4*15*74 -	4*23*73 -	10* 3*73 -	4* 8*74 -	- 52.24 -	8*16*7.4 -	8*15*75 - 09*04*75	5* 6*75 -	7* 9*75 -	9*29*76 - 09*29*76	10*14*76 - 10*14*46	4:19:82 -	5*10*82 -	3+12*81 - C3*20*81
	TEST NO.	MA 1	MA2	MA4	MAS	MAG	MAT	MA8	MA9F	MA 10F	MA 11F	MA 12F	MA 13	MA 14	MA 16	MA 17	MA 18	MA 1.9	MA21	MA22	MA24	MA28	MA29	MA33A	MA33R	MA34

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DOCUMENT NO. ST ATUS	UNASSIGNED	UNASSIGNED	UNASSIGNED
DDCUM NO			
NO.	513	513	1394
(ID) FACILITY WIND TUNNEL	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	(106) LARC UNITARY PLAN
(01)	V (66)	(66)	(106)
RUNS MODEL Ref.	O ADS PROBES		100 VEH 102
HOURS R EST/CHG	40/ 80	40/ 120	
TESTING SCHED. COMPL.	12* 2*81 - 12*16*81. 40/ 80	4*19*82 - 04*23*82	11* 2*51 - 11*04*81
TES:	MA35B	MA35C	MA37

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1984	DOCUMENT	UNASSIGNED	PUBL I SHED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	PUBLISHED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSI GNED	UNASSIGNED	PUBL I SHED	UNASSIGNED	IN PROCESS	PUBŁ I SHED
AUG 01.1984	NO.		2142								2274			•									2437		2460	2474
	ON .	210	587	033	033	8	591	593	597	6.12	009	632	630	631	409	633	038	628	390	627	103	103	652	653	655	656
	TUNNEL	DYNAMIC	-														IIGH RN)									
SER	QNIA	FRANSONIC	FRANSONIC	SUPERSONIC	SUPERSONIC		14-IN TRANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	4-FT TRANSONIC	14-IN TRANSONIC	32-IN LUDWIEG (HIGH RN)	RANSONIC	4-FT TRANSONIC	RANSONIC	SUPERSONIC	RANSONIC	RANSONIC	14-IN TRANSONIC	14-IN TRANSONIC	RANSONIC
TESTING PER TEST NUMBER	FACILITY	I LARC 16-FT TRANSONIC DYNAMIC	MSFC 14-IN TRANSONIC	ARC 6X6-FT SUPERSONIC	ARC 6X6-FT SUPERSONIC	AEDC J	MSFC 14-IN	MSFC 14-1N 1	MSFC 14-IN 1	MSFC 14-1N 1	MSFC 14-IN 1	MSFC 14-IN 1	MSFC 14-IN 1	MSFC 14-IN 1	AEDC 4-FT TR	MSFC 14-IN 1	MSFC 32-IN L	MSFC 14-IN TRANSONIC	AEDC 4-FT TR	MSFC 14-IN TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 11-FT TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN T	MSFC 14-IN T	MSFC 14-IN TRANSONIC
TESTING	(01)	(01)	(428)	(0)	(0)	, (o	6	6	(o)	(o)	(74)	(o)	(ô	(o)	6	ô •	(0)	60	60	(o)	60)	60	(74)	(74)	(74)	(74)
SSV WIND TUNNEL	MODEL Ref.	PRE-ATP/001	#ITAN-3C	DGIVE CYL	DGIVE CYL	3 ENG. FIRING	JET PLUME SIM.	CONE-DGIVE-CYL	CONE-CYLINDER	CONE CYLINDER	5/1400	DGIVE CYLINDER	ACOUSTICS	NOZZLE CALIB.	TRIPLE BODY	NOZZLE CALIB.	ROCKET MOTOR	NOZZLE CALIB.	OGIVE CYLINDER	NOZZLE CALIB.	TRIPLE BODY	TRIPLE BODY	5/1400	5/140C	5/140C	5/14oc
PHASE C/D	RUNS	230	0	0	0	0	0	Ó	٥	0	٥	0	c	0	0	0	0	0	0	0	0	0	0	0	0	0
PHAS	HOURS EST/CHG	416/ 400	40/ 182	40/ 584	40/ 166	80	, 56	176	24	160/ 200	60/ 142	104/ 320	104/ 278	24	25	4	368	26	32	28	72	44	200/ 294	80	150/ 160	•
	HOU EST,	416/	40/	40/	40/	80/	40/	160/	24/	160/	/09	104/	104/	24/	/09	24/	0	12/	30/	/09	/09	/09	200/	8C/	150/	200/
	ING COMPL.	11*15*72	- 04*15*74	- 08*19*74	08*28*74	- 11*23*74	01*14*74	4+08+74	- 03*10*74	09*11*75	- 07*06*75	05*01*77	- 07*05*77	- 07*22*75	- 10*13*75	16+31+75	04*21*76	07+17+75	07*25*75	- 11*06*75	12*12*75	08*04*76	08*01*78	06*01*78	05*16*79	09*01*79
	TESTING SCHFD.	10*10*72 -	1*18*74 -	7*10*74 -	8*20*74 - 08*28*74	11* 8*73 -	1+ 7+74 - 01+14+74	13*11*74 -	3* 6*74 -	8* 7*75 - 09*11*75	1* 9*75 -	1*31*77 - 05×01*77	5* 2*77 -	7+18+75 -	10* 3*75 -	10*23*75 - 16*31*75	2*17*76 - 04*21*76	7* 9*75 - 07*17*75	7*21*75 - 07*25*75	11* 3*75 -	12* 1*75 -	7*24*76 - 08*04*76	4*15*78 - 08*01*78	5* 1*78 - 06*01*78	3*14*79 - 05*16*79	8* 1*79 - 09*01*79
	TEST NO.	FA1	FA4	FA6	FA7	FA8	FA 10	F211	FA 12	F.A 13	FA14	P FA15	 56 FA 19	FA20A	FA20B	FA2:1A	F.A2·18:	F.A22A	FA228	F.A23A	FA238	, A23C	FA25	FA26	FA27.	FA28

UNASSIGNED DOCUMENT ND. ST ATUS 9 657 TUNNEL (74) MSFC 14-IN TRANSONIC MIND FACILITY (01) MODEL 0 5/1400 REF. RUNS TESTING HOURS SCHED. EST/CHG 400/ 4* 1*79 - 05*00*79 TEST. F.A29

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1984	DOCUMENT STATUS	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBLISHED	PUBI. I SHED	PUBL I SHED	UNASSI GNED	UNASSIGNED	CANCEL	CANCEL	CANCEL	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBŁISHED
AUG 01, 1984	DO ON	2002	2023	2031	2033	2033	2033	2040	2054	2054	2054	2090	2056	2056	2056	2066			2135	2135	2135	2106	2106	2106	2106	2079
	NO.	626	411	985	1014	962	995	643	1023	1034	1039	1040	130	135	148	960	418	4 19	660	660	660	1046	1049	1055	1058	6441
	TUNNEL	IC PRESSURE		LOW HYP.		•		IC PRESSURE					SE PRESSURE	SE PRESSURE	SE PRESSURE	OW HYP.			.OW HYP.	.OW HYP.	OW HYP.					NIC (M=6)
PER TEST NUMBER	WIND	LARC 8-FT TRANSONIC PRESSURE	LARC 22-IN HELIUM	LARC 31-IN CONT-FLOW HYP	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 8-FT TRANSONIC	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN	LARÇ LOW TURBULANCE	LARC LOW TURBULANCE	LARC LOW TURBULANCE PRESSURE	LARC 31-IN CONT-FLOW HYP.	LARC 22-IN HELIUM	LARC 22-IN HELIUM	LARC 31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 20-IN HYPERSONIC (M=6)
TESTING P	(1D)	(9)	(0)	(0)	60)	(o)	(6)		.6	60		6	6	6	6	(0)	(0)	60	(0)	0	(0)	(202)	(202)	(202)	(202)	(0)
SSV WIND TUNNEL TESTING	MODEL		L/0-100 ORB.	L/0-100 DRB.	L/0-100 DRB.	L/0-100 ORB.	L/0-100 ORB.	3, 139 NOSE	3, 139 NOSE	3, 139 NOSE	3, 139 NOSE	. 139 NOSE	089B, 139 NOSE	0898,139 NOSE	0898,139 NOSE	139 NOSE	1, 139 NOSE	0898, 139 NOSE	, 139 NOSE	. 139 NOSE	. 139 NOSE	. 139 NOSE	139 NOSE	. 139 NOSE	. 139 NOSE	, 139 NOSE
	REF	ATP	1/0	1/0	1/0	۲/٥	r/ò	089B,	089B	089B	8680	089P.	8680	089B	8680	089B.	0898,	9680	089B,	089B,	0898.	089B.	0898,	0898,	089B.	089B.
PHASE C/D	RUNS	73	24	19	37	32	43	108	58	20	14	37	92	22.	28	85	ភ	56	15	16	31	20	LV	45	σı	69
Ä	HOURS EST/CHG	60/ 84	120/ 136	40/ 46	80/ 75	09 /08	80/ 50	72/ 72	50/ 45	50/ 70	50/ 30	50, 42	160/ 96	140/ 32	140/ 32	24/ 58	40/80	272/272	40/ 64	40/ 40	40/ 24	100/ 80	100/ 90	100/ 40	100/ 30	120/ 240
	TESTING COMPL.	12*19*72	- 12*07*72	- 11*16*72	- 12*06*72	11+01+72	- 02*23*73	- 04*18*73	- 04*24*73	- 05*15*73	- 07*06*73	- 07*13*73	- 05+07+73	- 05*31*73	- 11+02+73	07*20*73	09*17*73	01*17*74	- 08*28*73	10*15*73	11*16*73	08*28*73	08*16*73	09+10+73	12+07+73	- 09+24+73
	TES. SCHED.	11*19*72	10* 6*72	8+23+72	11* 2*72 -	10*25*72	2+19+73	4*12*73	4*18*73	5* 7*73 -	- EL*C *L	7*10*73	4*26*73 -	5*23*73 -	10+31+73 -	7*11*73 -	9* 4*73 -	9+18+73 -	8*17*73 -	10* 9*73 -	11*14*73 -	8*17*73 -	8* 6*73 -	9* 5*73 -	12+ 5+73 -	8* 3*73 -
	TEST. NO.	LAt	LA2	LA3	LA4A	LA4B	LA4C	1.46	LA8A.	LA8B.	LASC	A LABB	-22	LA98	76Å7	LAIT	LA 12A	LA 12B	LA 13A	LA13B	LA 13C	LA 14A	LA14B	LA 14C	LA:140	LA:15

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NO.	624	648	653	692	658	202	206	405	141	1065	1065	9	498	860	160	097	103	105	102	149	214	699	929	1075	1075
FACILITY WIND TUNNEL	LARC MACH 8 VARIABLE DENSITY	LARC 8-FT TRANSONIC PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC LOW TURBULANCE PRESSURE	LARC LOW TURBULANCE PRESSURE	LARC 22-IN HELIUM	LARC LOW TURBULANCE PRESSURE	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 31-IN CONT-FLOW HYP.	LTV 4X4-FT SUPERSONIC	LARC 31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	LARC 16-FT TRANSONIC	LARC LOW TURBULANCE PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC UNITARY PLAN	LARC UNITARY PLAN
(ID)	(o)	6	(202)	(202)	(202)	6	ô	(O)	ô •	(202)	(202)	(35)	6 -	6°	(o)	(o)	°)	(o)	(35)	(42)	(32)	ô •	ô •	ô .	6 ^{,,}
MODEL	HRSI TILE	L/0-100 DRB	089B, 139NOSE	089B, 139NDSE	089B, 139NDSE	089B, 139 NOSE	089B, 139 NOSE	JSC 049	L/0-100 ORB.	089B, 139 NOSE	089B, 139 NOSE	3/139B	140A, B DRB	LARC ORB	F.S. TILE ARRAY	F.S. TILE ARRAY	089B, 139 NDSE	F.S. TILE ARRAY	3/1398	140A.B	140A.B	140A.B	140A,B	140A.B	140A,B
RUNS	72	102	81	70	20	55	.37	31	15	ဖ	20	126	31	58	16	43	26	52	49	22	4	29	37	Ø	36
HOURS EST/CHG	60/ 64	96 /08	160/ 160	160/ 54	160/ 44	160/ 144	88 /08	160/ 152	48/ 32	40/ 20	40/ 34	40/ 48	40/ 40	48/ 72	180/ 64	180/ 120	40/ 48	40/ 112	16/ 20	75/ 75	75/ 27	26/ 26	48/ 48	50/ 24	50/ 50
TESTING SCHED. COMPL. ES	6*26*72 - 08*23*72	5* 4*73 - 05*14*73 8	6*22*73 - 07*06*73 16	8*21*74 - 08*26*74 16	8*29*73 - 08*31*73 16	8*19*74 - 08*30*74 16	1*29*75 - 02*05*75 8	6*19*72 - 06*30*72 16	7*31*73 - 08*03*73 4	11* 9*73 - 11*12*73 4	1* 2*74 - 01*07*74 4	8*30*73 - 09*07*73 4	6*17*74 - 06*20*74	8* 9*73 - 08*16*73 4	7*25*73 - 38*03*73 18	11*28*73 - 12*03*73 18	11*19*73 - 11*26*73 40	1+17+74 - 01+31+74 40	11*12*73 - 11*13*73	11* 5*73 - 11*11*73 75	6* 3*75 - 06*05*75 75	12*14*73 - 12*21*73 56	3*27*74 - 03*29*74 48	12*26*73 - 12*28*73 50	2*11*74 - 02*15*74 50
TEST.	LA 16	LA 17	LAZOA	LA20B	LA20C	LA21A	LA2:18	LA22	LA23	LA24A	LA24B	- LA25	.23	LA31	EA32A	LA32B	LA33	LA34	LA35	LA36A	LA36B	LA38A	LA38B:	LA39A	LA39B

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NO.	1075	7426	550	48A	1074	1093	677	1092	1117	104	104	104	680	1101	1111	684	6458	220	306	6456	659	114	114	5.12	703
WIND TUNNEL	SY PLAN	HELIUM	B / HYPERSONIC	PERSONIC	Y PLAN	Y PLAN	8-FT TRANSONIC PRESSURE	Y PLAN	Y PLAN	31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	8-FT TRANSONIC PRESSURE	Y PLAN	Y PLAN	LARC 8-FT TRANSONIC PRESSURE	LARC 20-IN HYPERSONIC (M=6)	REON	HEL I UM	LARC 20-IN HYPERSONIC (M=6)	LARC 8-FT TRANSONIC PRESSURE	LARC 31-IN CONT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	UPERSONIC	LARC 8-FT TRANSONIC PRESSURE
FACILITY	LARC UNITARY PLAN	LARC 22-IN HELIUM	AEDC B / HN	AEDC B / HYPERSONIC	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 8-FT J	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 31-IN	LARC 31-IN	LARC 31-IN	LARC 8-FT T	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 8-FT TI	LARC 20-IN	LARC 20-IN FREUN	LARC 22-IN HELIUM	LARC 20-IN H	LARC 8-FT TR	LARC 31-IN C	LARC 31-IN C	LTV 4X4-FT SUPERSONIC	LARC 8-FT TR
(ar)	(o _	(o)	(0)	(o) ()	6	(ô	ô)	(o)	6 -	· (6)	(0)	6	(o)	ô •	60	ô	(0)	(°)	60	· (o)	6	(o)	(o)	(42)	(72)
S MODEL REF.	140A.B	139B	8680	089B	4/140A.B	4/140A.B	4/140A,B	140A,B 0RB	140A,B DRB	140A/B ORB	140A/B ORB	140A/B ORB	O898-MOD NOSE	0898-MOD NOSE	0898-MOD NOSE	140A,B	140A.B	5/140c	5/1400	14CC ORB.	VEH. 5	140A,B	140A.B	140A,B	4/140A,B
SNOC	56	25	ю	7	42	28	54	19	51	43	35	31	66	37	105	140	38	ო	16	ស	147	28	0	72	146
HOURS EST/CHG	80	40/ 40	©		Qr.	70	96	96	88	40/ 120	88	16	48	30	25	72	40	32	72	28	176	144	24	80	96
HC EST/	20/	40/	16/	16/	20/	20/	160/	/96	/88	40/	40/	40/	48/	20/	20/	80/	72/	/08	80/	28/	160/ 176	84/ 144	84/	49/80	/96
TESTING SCHED. COMPL.	4* 1*74 - 04*08*74	5*13*74 - 06*07*74	6*25*74 - 06*25*74	7*27*74 - 07*27*74	3* 4*74 - 03*22*74	3*18*74 - 03*27*74	4* 2*74 - 04*09*74	9*13*74 - 09*24*74	9*24*74 - 10*10*74	1* 2*74 - 01*09*74	6*10*74 - 06*24*74	7* 8*74 - 07*10*74	4*10*74 - 04*15*74	4*24*74 - 04*26*74	7*15*74 - 57*17*74	5+24+74 - 05+31+74	8*26*74 - 08*30*74	8*12*74 - 08*14*74	1*12*77 - 01*18*77	8*14*74 - 08*19*74	11*11*74 - 11*22*74	10* 2*74 - 10*24*74	6* 4*75 - 06*06*75	9*30*74 - 10*04*74	12*20*74 - 01*07*75
ND.	LA39C	LA40	LA42A	LA42B	LA43A	LA438	LA44	LA46A	LA46B	LA47A	LA478	LA47C	LA 18	LA49A	.A49B	LASI	LA52	LA53A	LA53B	LA54	LA56	LA57A	LA57B	LA58	.A59

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228 2300 717 2264 1118 2270 1151 2279 135 2281 552 2266 439 2256 714 2257 103 2269 1147 2271 740 2309 227 2298 238 2298 1173 2305 200 2344 267 2311 1275 2291 1275 2291 1275 2291 1275 2291 1275 2291 1275 2291 1275 2291 1111 2374 445 2343 P	SCHED. 8*25*75	TESTING COMPL. 5 - 09*10*75	HDI EST/6	HDURS EST/CHG 40/ 40	RUNS 138	MODEL REF. 140C/REMOTE ELE	(10)	FACILITY WIND TUNNEL	NO C	DOCUMENT NO. S	NT ST ATUS
105-23-75 40, 80 80 400 400C/RENDITE ELE (44) LARC UNITARY PLAN 1118 2270 PUBLISHED 105-13-175 40, 38 191 140C/RENDITE ELE (44) LARC UNITARY PLAN 1151 2279 PUBLISHED 105-13-175 40, 38 191 140C/RENDITE ELE (44) LARC UNITARY PLAN 1151 2279 PUBLISHED 105-13-175 40, 120 131 140C/RENDITE ELE (44) LAY 47+5T SUPERSONIC 552 2268 PUBLISHED 105-23-75 40, 120 131 140C/RENDITE ELE (44) LAY 47+5T SUPERSONIC 552 2268 PUBLISHED 105-23-75 40, 120 130 40C/RENDITE ELE (44) LAY 47+5T SUPERSONIC 552 2268 PUBLISHED 106-22-75 48 48 40 41/40A, B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 106-22-75 48 48 49 41/40A, B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 12-20-75 48 48 48 49 41/40A, B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 12-20-75 48 48 48 49 41/40A, B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 12-20-75 48 48 49 41/40A, B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 12-20-75 48 48 49 49 41/40A, B (69) LARC UNITARY PLAN 1132 2398 PUBLISHED 12-20-75 48 49 40 40 40 40 40 40 40	Z.	ı	40/		8		(44)	LARC LOW TURBULANCE PRESSURE	228	22.48	
09+17-75 40/ 14 63 140C/REMOTE ELE (44) LARC UNITARY PLAN 1151 2279 PUBLISHED 102-24-75 80/ 28 191 140C/REMOTE ELE (44) LARC UNITARY PLAN 1151 2279 PUBLISHED 102-24-75 80/ 80 26 140C/REMOTE ELE (44) LIV 4X4-FT SUPERSONIC 552 2266 PUBLISHED 07+02-75 40/ 120 131 140C/REMOTE ELE (44) LIV 4X4-FT SUPERSONIC 552 2266 PUBLISHED 03+20-75 120/ 120 26 140C 0RB (0) LARC 22-IN HELIUM 439 2256 PUBLISHED 03+03-17-76 44/ 48 30 4/140A.B (69) LARC BUTTARY PLAN 1147 2257 PUBLISHED 07-31-76 48/ 48 30 4/140A.B (69) LARC BUTTARY PLAN 1147 2271 PUBLISHED 07-31-76 48/ 48 30 4/140A.B (69) LARC BUTTARY PLAN 1147 2271 PUBLISHED 07-31-76 48/ 48 40 4140A.B (69) LARC BUTTARY PLAN 1132 2271 PUBLISHED 112-30-76 48/ 44 41/40A.B (69) LA	F	1	6 4		301		(44	LARC 8-FT TRANSONIC PRESSURE	717	2264	PUBLISHED
09+17+75 40/ 38 191 140C/REMOTE ELE (44) LARC UNTARY PLAN 1151 225 226 PUBLISHED 10-24-75 80/ 80 26 140C/REMOTE ELE (44) LTV AX4-FT SUPESSURE 135 226 PUBLISHED 07-02-75 40/ 120 131 140C/REMOTE ELE (44) LTV AX4-FT SUPERSUNE 552 226 PUBLISHED 03-20-75 120/ 120 26 140C ORB (0) LARC 22-IN HELLUM 439 226 IN PROCESS 08-06-75 38/ 64 64 98 5/140C (72) LARC B-FT TRANSONIC PRESSURE 714 2257 PUBLISHED 07-31-75 38/ 60 299 140C/REMOTE ELE (44) CALSPAN B-FT TRANSONIC 142 2257 PUBLISHED 07-3-1-76 38/ 60 299 140C/REMOTE ELE (43) LARC UNITARY PLAN 140 225 140 140 140 140 140 140 140 140	7	5 - 07*18*75	40/		. 63		(44)	LARC UNITARY PLAN	1118	2270	PUBLISHED
10-24-75 80/ 80 26 140C/REMOTE ELE (44) ARC 12-FT PRESSURE 135 226 PUBLISHED 03-20-75 40/ 120 131 140C/REMOTE ELE (44) LIV 4X4-FT SUPERSONIC 552 2266 PUBLISHED 03-20-75 120/ 120 28 140C ORB (0) LARC 22-IN HELLUM 439 2256 IN PROCESS 04-29-75 64/ 64 98 5/140C (72) LARC 8-FT TRANSONIC PRESSURE 714 2257 PUBLISHED 09-06-75 38/ 60 299 140C/REMOTE ELE (44) CALSPAN 8-FT TRANSONIC PRESSURE 72 PUBLISHED 10-22-75 48/ 64 15 4/140A, B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 10-22-75 48/ 64 14 4/140A, B (69) LARC LUNITARY PLAN 1132 2271 PUBLISHED 11-23-0-75 48/ 64 4/140A, B (69) LARC LUNITARY PLAN	2		40/		191		(44)	LARC UNITARY PLAN	1151	2279	PURK TSHED
07-02-75 40/ 120 131 140C/REMOTE ELE (44) LTV 4X4-FT SUPERSONIC 552 2266 PUBLISHED 03-20-75 120/ 120 26 140C ORB (0) LARC 22-IN HELLUM 439 2256 IN PROCESS 04-29-75 64/ 64 98 5/140C (72) LARC B-FT TRANSONIC 714 2257 PUBLISHED 08-06-75 38/ 60 299 140C/REMOTE ELE (44) CALESPAN B-FT TRANSONIC 163 2259 PUBLISHED 07-21-75 48/ 48 43 4/140A, B (69) LARC UNITARY PLAN 173 2271 PUBLISHED 03-31-76 12/ 72 20 4/140A, B (69) LARC UNITARY PLAN 173 2271 PUBLISHED 03-416-76 30 4/140A, B (69) LARC LOW TURBULANCE PRESSURE 227 PUBLISHED 12-13-75 16/ 16 4/140A, B (69) LARC LOW TURBULANCE PRESSURE 227 PUBLISHED 03-406-76 48/ 128 141 4/140A, B (69) <	7.	5 - 10+24+75	80/		56		(44)	ARC 12-FT PRESSURE	135	2281	PUBI ISHED
03+20+75 120/ 120 26 140C 08B (0) LARC 22-IN HELLIUM 439 2256 IN PROCESS 04+29+75 64/ 64 98 5/140C (72) LARC B-FT TRANSONIC PRESSURE 714 2257 PUBLISHED 08+06+75 38/ 60 299 140C/REMOTE ELE (44) CALSPAN B-FT TRANSONIC 1437 2257 PUBLISHED 07+31+75 48/ 48 30 4/140A,B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 03+31+76 72/ 72 30 4/140A,B (69) LARC UNITARY PLAN 1172 2271 PUBLISHED 12-20+75 48/ 64 15 4/140A,B (69) LARC UNITARY PLAN 1173 2271 PUBLISHED 12-20+75 82/ 82 14 4/140A,B (69) LARC UNITARY PLAN 1173 2271 PUBLISHED 12-20+76 82 82 1440A,B (69) LARC UNITARY PLAN 173 <td>.7.</td> <td>5 - 07*02*75</td> <td>40/</td> <td></td> <td>131</td> <td></td> <td>(44)</td> <td>LTV 4X4-FT SUPERSONIC</td> <td>552</td> <td>2266</td> <td>PUBL I SHED</td>	.7.	5 - 07*02*75	40/		131		(44)	LTV 4X4-FT SUPERSONIC	552	2266	PUBL I SHED
04*29*75 64/ 64 98 5/140C (72) LARC B-FT TRANSONIC PRESSURE 714 2257 PUBLISHED 08*06*75 38/ 60 299 140C/REMOTE ELE (44) CALSPAN B-FT TRANSONIC 103 2269 PUBLISHED 07*31*75 48/ 48 30 4/140A,B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 03*31*76 72/ 72 30 4/140A,B (69) LARC UNITARY PLAN 1172 2271 PUBLISHED 03*31*76 72/ 72 30 4/140A,B (69) LARC LOW TURBULANCE PRESSURE 229 PUBLISHED 12*30*76*76 30 4/140A,B (69) LARC LOW TURBULANCE PRESSURE 229 PUBLISHED 04*16*76 40 4 C69 LARC LOW TURBULANCE PRESSURE 229 PUBLISHED 03*0**5**76 48/ 120 140C/REMOTE ELE (44) LV 4X4-FT SUPERSONIC 267 231 PUBLISHED 01*28**76 48/ 120 <td>*7.</td> <td> 03*20*75</td> <td>120/</td> <td>120</td> <td>56</td> <td>140C ORB</td> <td>;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;</td> <td>LARC 22-IN HELIUM</td> <td>439</td> <td>2256</td> <td>IN PROCESS</td>	*7.	03*20*75	120/	120	56	140C ORB	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	LARC 22-IN HELIUM	439	2256	IN PROCESS
08+06+75 38/ 60 299 400C/REMOTE ELE (44) CALSPAN 8-FT TRANSONIC 103 226 PUBLISHED 07+31+75 48/ 48 48 30 4/140A.B (69) LARC UNITARY PLAN 1147 2271 PUBLISHED 03+31+76 12/ 72 30 4/140A.B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 12+30-75 82/ 44 4/140A.B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 12+30-75 82/ 82 14 4/140A.B (69) LARC UNITARY PLAN 1132 227 2279 PUBLISHED 12+30-75 82/ 82 14 4/140A.B (69) LARC LOW TURBULANCE PRESSURE 227 229B PUBLISHED 04+16+7 16 6 4/140A.B (69) LARC LOW TURBULANCE PRESSURE 227 229B PUBLISHED 03+06+7 48/ 120 LARC UNITARY PLAN 1173 229B PUBLISHED	*75	- 04*29*75	64/			5/140C	(72)	LARC 8-FT TRANSONIC PRESSURE	714	2257	PUBLISHED
07+31+75 48/4 48 30 4/140A,B (69) LARC UNITARY PLAN 1137 2271 PUBLISHED 10-22+75 48/6 41 41/40A,B (69) LARC UNITARY PLAN 1132 2271 PUBLISHED 12+30+75 42/40A,B (69) LARC LOW TURBULANCE PRESSURE 227 229 PUBLISHED 12+30+75 82/8 14 4/140A,B (69) LARC LOW TURBULANCE PRESSURE 227 229 PUBLISHED 12+30+75 82/8 14 4/140A,B (69) LARC LOW TURBULANCE PRESSURE 227 229 PUBLISHED 04+16+76 90/8 283 140C/REMOTE ELE (44) LARC LOW TURBULANCE PRESSURE 236 PUBLISHED 07-24+76 120/124 14 140C/REMOTE ELE (44) LTV 4X4-FT SUPERSONIC 573 2305 PUBLISHED 07-24+76 120/142 14 140C/REMOTE ELE (44) ARC 11-FT TRANSONIC 267 234 PUBLISHED 01+28+76 16/146 14 A	*75	ı	38/		299		(44)	CALSPAN 8-FT TRANSONIC	103	2269	PUBLISHED
10÷22*75 48/ 64 15 4/140A,B (69) LARC UNITARY PLAW 1132 2271 PUBLISHED 12*30*75 82/ 82 14 4/140A,B (69) LARC B-FT TRANSONIC PRESSURE 227 2298 PUBLISHED 12*30*75 16/ 16 6 4/140A,B (69) LARC LOW TURBULANCE PRESSURE 227 2298 PUBLISHED 23*06*76 90/ 90 283 140C/REMOTE ELE (44) LARC UNITARY PLAN 1173 2318 PUBLISHED 03*06*76 48/ 128 141 140C/REMOTE ELE (44) LAVA-FT SUPERSONIC 267 2305 PUBLISHED 07*24*76 120/ 151 521 140C/REMOTE ELE (44) LAVA-FT SUPERSONIC 267 234: PUBLISHED 01*28*76 16/ 16/ 16/ 4 089B (13) LARC 11-FT TRANSONIC 267 234: PUBLISHED 11*0*7*75 156/ 156 83 140C/747 (88) LARC TY10-FT HIGH SPEED 999 2299 PUBLISHED 03*23*76 40/ 120 54 0RB/TC (ALT) (0) LARC LOW TURBULANCE PRESSURE 229 2296 PUBLISHED 03*23*76 30/ 32 66 SUPPORT TARES (202) CALSPAN 8-FT TRANSONIC 111 2374 PUBLISHED 03*24*76 88/ 88/ 88 64 140C (13) LARC 22-IN HELIUM 445 2313 PUBLISHED 03*23*76 30/ 32 64 140C	*75	- 07*31*75	48/	48		4/140A.B	(69)	LARC UNITARY PLAN	: † 147	2271	PUBLISHED
03+31+76 72/ 72 30 4/140A.B (69) LARC B-FT TRANSONIC PRESSURE 740 2309 PUBLISHED 12+30+75 82/ 82 82 82 82 14 4/140A.B (69) LARC LOW TURBULANCE PRESSURE 227 2298 PUBLISHED 12+33+75 16/ 16 4 140A.B (69) LARC LOW TURBULANCE PRESSURE 227 2298 PUBLISHED 04+16+76 90/ 90 283 140C/REMOTE ELE (44) LARC LOW TURBULANCE PRESSURE 227 2298 PUBLISHED 07+24+76 48/ 128 141 140C/REMOTE ELE (44) LTV 4X4-FT SUPERSONIC 573 2305 PUBLISHED 07+24+76 120/ 151 4 089B (13) LARC 1+T HYPERSONIC 267 231 PUBLISHED 01+28+76 16/ 16 4 089B (13) LARC 1-FT HYPERSONIC 267 2291 PUBLISHED 01+23+1+76 156/ 156 81 1	*75	- 10:22*75	48/	64		4/140A.B	(69)	LARC UNITARY PLAN	1132	2271	PUBL I SHED
12*30*75 82/ 82 14 4/140A.B (69) LARC LOW TURBULANCE PRESSURE 227 229B PUBLISHED 12*13*75 16/ 16 6 4/140A.B (69) LARC LOW TURBULANCE PRESSURE 238 229B PUBLISHED 04*16*76 90/ 30 283 140C/REMOTE ELE (44) LAV A4-FT SUPERSONIC 573 2305 PUBLISHED 03*06*76 48/ 128 141 140C/REMOTE ELE (44) LTV A4A-FT SUPERSONIC 573 2305 PUBLISHED 01*28*76 120/ 151 521 140C/REMOTE ELE (44) ARC 11-FT TRANSONIC 260 234. PUBLISHED 01*28*76 16/ 16 4 089B (13) LARC 4-FT HYPERSONIC 267 231 PUBLISHED 01*28*76 156/ 156 8 140C (13) LARC 7X10-FT HIGH SPEED 229 PUBLISHED 01*28*76 40/ 120 54 0RB/TC (ALT) (0) LARC LOW TURBULANCE PRESSUNE 229 PUBLISHED 05*28*24*76 88/ 88 64 140C <t< td=""><td>*76</td><td>- 03*31+76</td><td>72/</td><td>72</td><td></td><td>4/140A.B</td><td>(69)</td><td>LARC 8-FT TRANSONIC PRESSURE</td><td>740</td><td>2309</td><td>PUBLISHED</td></t<>	*76	- 03*31+76	72/	72		4/140A.B	(69)	LARC 8-FT TRANSONIC PRESSURE	740	2309	PUBLISHED
12*13*75 16/ 16 6 4/140A.B (69) LARC LOW TURBULANCE PRESSURE 238 229B PUBLISHED 04*16*76 90/ 90 283 140C/REMOTE ELE (44) LARC UNITARY PLAN 1173 231B PUBLISHED 03*06*76 48/ 128 141 140C/REMOTE ELE (44) LTV 4X4-FT SUPERSONIC 573 2305 PUBLISHED 07*24*76 120/ 151 521 140C/REMOTE ELE (44) LTV 4X4-FT SUPERSONIC 500 234.2 PUBLISHED 01*28*76 16/ 16 4 089B (13) LARC 4-FT HYPERSONIC 267 231 PUBLISHED 12*11*75 64/ 64 8 140C (0) NSWC HYPERVELOCITY LAB (#8A) 1275 2291 IN PROCESS 11*07*7*75 156/ 156 83 140C/747 (8) LARC 7X10-FT HIGH SPEED 299 2296 PUBLISHED 01*23*76 40/ 120 54 0RB/TC (ALT) (0) LARC LOW TURBULANCE PRESSURE 229 2296 PUBLISHED 05*24*76 88/	*75	- 12*30*75	82/	83		4/140A.B	(69)	LARC LOW TURBULANCE PRESSURE	227	2298	PUBL I SHED
04*16*76 90/ 90 283 140C/REMDTE ELE (44) LARC UNITARY PLAN 1173 2318 PUBLISHED 03*06*76 48/ 128 141 140C/REMDTE ELE (44) LTV 4X4-FT SUPERSONIC 573 2305 PUBLISHED 07*24*76 120/ 151 521 140C/REMDTE ELE (44) ARC 11-FT TRANSONIC 267 234; PUBLISHED 01*28*76 16/ 16 4 089B (13) LARC 4-FT HYPERSONIC 267 231 PUBLISHED 11*07*75 156/ 156 8 140C (0) NSWC HYPERVELOCITY LAB (#8A) 1275 2291 IN PROCESS 11*07*75 156/ 156 83 140C/747 (88) LARC ZX10-FT HIGH SPEED 999 2299 PUBLISHED 01*23*76 40/ 120 54 DRB/TC (ALT) (0) LARC LOW TURBULANCE PRESSURE 229 PUBLISHED 05*24*76 88/ 88 64 140C (13) LARC 22-IN HELIUM 445 2343 PUBLISHED 08*29*75 36/ 36/ 36	*76	- 12*13*75	16/	9_		1/140A,B	(69)	LARC LOW TURBULANCE PRESSURE	238	2298	PUBLISHED
03*06*76 48/ 128 141 140C/REMOTE ELE (44) LTV 4X4-FT SUPERSONIC 573 2305 07*24*76 120/ 151 521 140C/REMOTE ELE (44) ARC 11-FT TRANSONIC 200 2344 01*28*76 16/ 16 4 089B (13) LARC 4-FT HYPERSONIC 267 2311 12*11*75 64/ 64 8 140C (0) NSWC HYPERVELDCITY LAB (#8A) 1275 2294 11*07*75 156/ 156 83 140C/747 (88) LARC 7X10-FT HIGH SPEED 999 2296 01*23*76 40/ 120 54 0RB/TC (ALT) (0) LARC LOW TURBULANCE PRESSURE 229 2296 08*19*76 30/ 32 66 SUPPORT TARES (202) CALSPAN 8-FT TRANSONIC 111 2374 05*24*76 88/ 88 64 140C (13) LARC 4-FT HYPERSONIC 445 2311 08*29*75 36/ 36/ 36 4 089B (13) LARC 4-FT HYPERSONIC 446 2311	9/.	- 04*16*76	/06	06			(44)	LARC UNITARY PLAN	1173	2318	PUBLISHED
07*24*76 120, 151 521 140C/REMOTE ELE (44) ARC 11-FT TRANSONIC 200 2343 01*28*76 16/ 16 4 089B (13) LARC 4-FT HYPERSONIC 267 2311 12*11*75 64/ 64 8 140C (0) NSWC HYPERVELOCITY LAB (#8A) 1275 2291 11*07*75 156/ 156 83 140C/747 (8B) LARC 7X10-FT HIGH SPEED 999 2296 01*23*76 40/ 120 54 0RB/TC (ALT) (0) LARC LOW TURBULANCE PRESSURE 229 2296 08*19*76 30/ 32 66 SUPPORT TARES (202) CALSPAN 8-FT TRANSONIC 111 2374 05*24*76 88/ 88 64 140C (13) LARC 22-IN HELIUM 445 2343 08*29*75 36/ 36/ 36 4 089B (13) LARC 4-FT HYPERSONIC 446 2311	* 76	1	48/	128		140C/REMOTE ELE	(44)	LTV 4X4-FT SUPERSONIC	573	2305	PUBL I SHED
01*28*76 16/ 16 4 089B (13) LARC 4-FT HYPERSONIC 267 2311 12*11*75 64/ 64 8 140C (0) NSWC HYPERVELOCITY LAB (#8A) 1275 2291 11*07*75 156/ 156 83 140C/747 (8B) LARC 7X10-FT HIGH SPEED 999 2296 01*23*76 40/ 120 54 0RB/TC (ALT) (0) LARC LOW TURBULANCE PRESSURE 229 2296 08*19*76 30/ 32 66 SUPPORT TARES (202) CALSPAN 8-FT TRANSONIC 111 2374 05*24*76 88/ 88 64 140C (13) LARC 22-IN HELIUM 445 2343 08*29*75 36/ 36/ 36 4 089B (13) LARC 4-FT HYPERSONIC 446 2311	92	- 07*24*76	120/			40C/REMOTE ELE	(44)	ARC 11-FT TRANSONIC	200	2344	PUBLISHED
12*11*75 64/64 64 8 140C (0) NSWC HYPERVELOCITY LAB (#8A) 1275 2291 11*07*75 156/156 83 140C/747 (8B) LARC 7X10-FT HIGH SPEED 999 2299 01*23*76 40/120 54 0RB/TC (ALT) (0) LARC LOW TURBULANCE PRESSURE 229 2296 08*19*76 30/32 66 SUPPORT TARES (202) CALSPAN 8-FT TRANSONIC 111 2374 05*24*76 88/8 88 64 140C (13) LARC 22-IN HELIUM 445 2343 08*29*75 36/36 4 089B (13) LARC 4-FT HYPERSONIC 446 2311	9/4	- 01*28*76		9.		8680	(23)	LARC 4-FT HYPERSONIC	267	2311	PUBLISHED
11*07*75 156/ 156 83 140C/747 (88) LARC 7X10-FT HIGH SPEED 999 2299 01*23*76 40/ 120 54 0RB/TC (ALT) (0) LARC LOW TURBULANCE PRESSURE 229 2296 08*19*76 30/ 32 66 SUPPORT TARES (202) CALSPAN 8-FT TRANSONIC 111 2374 05*24*76 88/ 88 64 140C (13) LARC 22-IN HELIUM 445 2343 08*29*75 36/ 36 4 089B (13) LARC 4-FT HYPERSONIC 446 2311	72	- 12*11*75	64/	64		40C	(0)	NSWC HYPERVELOCITY LAB (#8A)	1275	2291	IN PROCESS
- 01*23*76 40/ 120 54 ORB/TC (ALT) (0) LARC LOW TURBULANCE PRESSURE 229 2296 - 08*19*76 30/ 32 66 SUPPORT TARES (202) CALSPAN 8-FT TRANSONIC 111 2374 - 05*24*76 88/ 88 64 140C (13) LARC 22-IN HELIUM 445 2343 - 08*29*75 36/ 36 4 089B (13) LARC 4-FT HYPERSONIC 446 2311	75			156	ღ	40C/747	(88)	LARC 7X10-FT HIGH SPEED	666	2299	PUR 1 SHED
- 08*19*76 30/ 32 66 SUPPORT TARES (202) CALSPAN B-FT TRANSONIC 1111 2374 - 05*24*76 88/ 88 64 140C (13) LARC 22-IN HELIUM 445 2343 - 08*29*75 36/ 36 4 0898 (13) LARC 4-FT HYPERSONIC 446 2311	76			120	4	RB/TC (ALT)	6	LARC LOW TURBULANCE PRESSURE	229	2296	PUBLISHED
- 05*24*76 88/ 88 64 140C (13) LARC 22-IN HELIUM 445 2343 - 08*29*75 36/ 36 4 0898 (13) LARC 4-FT HYPERSONIC 446 2311	9/	- 08*19*76	30/	32	9		(202)	CALSPAN 8-FT TRANSONIC	111	2374	PUBL I SHED
- 08*29*75 36/ 36 4 0898 (13) LARC 4-FT HYPERSONIC 446 2311	92	- 05*24*76	88/	88	4	40C	(13)	LARC 22-IN HELIUM	445	2343	PUBL I SHED
	75	- 08*29*75	/96	36	4	968	(13)	LARC 4-FT HYPERSONIC	446	2311	PUBLISHED

IT ST ATUS	PUBLISHED	PUBL I SHED	PUBL I SHED	IN PROCESS	IN PROCESS	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	PUBL I SHED	UNASSIGNED	UNASSIGNED	PUBLISHED	UNASSIGNED	PUBLISHED	PUBLISHED	PUBL 1 SHED	UNASSIGNED	PUBL I SHED	PUBL ISHED	PUBLISHED	CANCEL	PUBL I SHED	PUBL I SHED	PUBL I SHED
DOCUMENT NO. ST	2311 P	2353 P	2352 P	2362	2383 I	ח	ə	.	.	2373 P	.3	Þ	2390 P		2374 p	2396 P	2395 P	ם	2397 p	2399 P	2409 P	2411 C	2426 P	2432 P	2478 P
O	6468	213	758	764	130	330	041	140	240	769	239	241	1194	463	113	1212	786	6502	787	1217	803	804	1207	1243	1299
FACILITY WIND TUNNEL	! LARC 20-IN HYPERSONIC (M=6)	ARC 11-FT TRANSONIC	LARC 8-FT TRANSONIC PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC 31-IN CONT-FLOW HYP.	LARC 20-IN FREON	MSFC 32-IN LUDWIEG (HIGH RN)	MSFC 32-IN LUDWIEG (HIGH RN)	LARC LOW TURBULANCE PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC LOW TURBULANCE PRESSURE	LARC LOW TURBULANCE PRESSURE	LARC UNITARY PLAN	LARC 22-IN HELIUM	CALSPAN 8-FT TRANSONIC	LARC UNITARY PLAN	LARC 8-FT TRANSONIC PRESSURE	LARC 20-IN HYPERSONIC (M=6)	LARC 8-FT TRANSONIC PRESSURE	LARC UNITARY PLAN	LARC 8-FT TRANSONIC PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN
(ID)	(13)	(201)	(44)	(201)	(o)	(O)	(o _	(o)	6.	(201)	-(ô -	60	(44)	6	60	(44)	(44)	6	(72)	(44)	(44)	(201)	(74)	(105)	(106)
RUNS MODEL Ref.	968O 9	220 DV101 (ALT)	214 140C/REMOTE ELE	67 00101	34 NOSE CONE	14 NOSE CONE	116 L.E.VORTEX	O L.E.VORTEX	42 L.E. VORTEX	147 TAILCONE	4 GENERIC	24 GENERIC	200 140C/REMOTE ELE	29 STING EFFECT	88 SUPPORT TARES	60 140C SILTS	95 140C SILis	0 5/140C	17 5/140C	70 140C SILTS	*75 140C/REMOTE ELE	0 1400	19 5/140C	41 VEH. 102	624 VEH 102
HOURS EST/CHG	16/ 16	160/ 208	80/ 104	80/ 152	80/ 56	160/ 160	80/ 400	80/ 400	32/ 64	104/ 104	14/ 14	5/ 25	9/ 55	40/ 120	52 /0	90 /	7 40	1/ 24	7 28	09 /	/ 45	32	/ 40	/ 48	80/ 144
TESTING SCHED. COMPL. ES'	5*21*75 - 05*21*75 10	10* 4*76 - 10*18*76 160	9* 3*76 - 09*15*76 80	11*11*76 - 11*19*76 80	3*16*77 - 04*21*77 80	6* 6*77 - 10*19*77 16(4*18*77 - 08*15*77 80	10* 1*78 - 06*01*79 80	1*28*77 - 02*02*77 32	2*17*77 - 02*28*77 104	12*15*76 - 12*17*76 14	2* 2*77 - 02*07*77 25/	5*18*77 - 05*24*77 55/	12* 7*78 - 01*04*79 40	3*25*77 - 04*04*77 80/	8* 8*77 - 08*10*77 30/	8* 3*77 - 08*05*77 95/	2* 3*77 = 02*05*77 24/	8* 5*77 - 09*08*77 32/	8*23*77 - 08*31*77 30/	2* 1*78 - 02*06*78 45/	2* 6*78 - 02*06*78 32/	6* 7*77 - 06*10*77 40/	7* 3*78 - 07*05*78 16/	1* 8*80 - 02*01*80 80
TEST ND.	LA88	LA89	LA91.	LA92	LA93	LA95	LA97A	LA97B	LA98	LA99	LA 100A	LA 1008	-26 LA101	LA 102	LA 103	LA110	LA111	LA 112	OF OF	P(NAI PAGO	ر آ آ آ آ آ آ آ	PAGA NGA NAU	LA 125	LA131

ORIGINAL LICE TO

10*11*79 - 11*01*79 12*26*79 - 01*03*80 1*12*80 - 02*01*80 3*18*80 - 05*01*80 6*22*80 - 07*01*80 2* 1*80 - 03*01*80 12*21*79 - 01*08*80 7*28*80 - 08*01*80			REF.	MODEL (ID)	FACILITY	O	Q	ND. ST ATUS
12*26*79 - 01*03*80 1*12*80 - 02*01*80 3*18*80 - 05*01*80 6*22*80 - 07*01*80 2* 1*80 - 03*01*80 12*21*79 - 01*08*80 7*28*80 - 08*01*80	40/80	18	VEH 102	(68)	LARC 16-FT TRANSONIC	341	2471	2471 PUBLISHED
1*12*80 - 02*01*80 3*18*80 - 05*01*80 6*22*80 - 07*01*80 2* 1*80 - 03*01*80 12*21*79 - 01*08*80 7*28*80 - 08*01*80	80/ 80	11	VEH. 102	(105)	LARC 16-FT TRANSONIC	342	2475	PUBL I SHED
3 3 18 80 - 05 40 1 80 2 6 22 80 - 07 40 1 80 2 1 80 - 03 40 1 80 12 2 1 7 9 - 01 40 8 80 7 2 2 8 80 - 08 40 1 80	80/ 148	0	VEH 102	(74)	LARC 20-IN HYPERSONIC (M=6)	6546	2477	PUBLISHED
	80/ 200	•	VEH 102	(74)	LARC 20-IN HYPERSONIC (M=6)	6546	2477	PUBLISHED
2* 1*80 - 03*01*80 12*21*79 - 01*08*80 7*28*80 - 08*01*80	80/ 10	•	VEH 102	(72)	LARC 20-IN HYPERSONIC (M=6)	6550		UNASSIGNED
12*21*79 - 01*08*60 7*28*80 - 08*01*80	80/80	•	VEH 102	(74)	LARC 20-IN FREON	390		UNASSIGNED
7*28*80 - 08*01*80	80, 88	0	VEH 102	(106)	LARC 8-FT TRANSONIC PRESSURE	865		UNASSIGNED
	80/ 138	198	VEH 102	(106)	LTV 4X4-FT SUPERSONIC	742	2484	PUBLISHED
LA145A 9+28+81 - 10+08+81 80	80/ 90	. 33	140c	(203)	LARC UNITARY PLAN	1390	2336	PUBL I SHED
LA1458 9+11+81 - 09+17+81 80	80/ 50	37	140C	(203)	LARC UNITARY PLAN	1345	2336	PUBLISHED

(4)

OR	IGINAL	PAGE 12
OF	POOR	QUALITY

			Ī	ASE C/L	PHASE C/D SSV WIND TUNNEL TESTING PER TEST NUMBER	TESTING	PER TEST NUMBER			•	AUG 01. 1984	4 20 00
TEST NO.	TES1 SCHED.	TESTING SCHED. COMPL.	HOURS EST/CHG	RUNS	MODEL REF.	(ar)	FACILITY	WIND TU	7 UNNEL	ND.	Q. QN	DDCUMENT STATUS
AA 1A	2*12*74	2*12*74 - 02*25*74	64/ 64	28	28 4/140A.B	(49)	ARC 3.5-FT HYPERSONIC	ERSONIC		186		UNASSIGNED
AA 18	4* 4*74	4* 4*74 - 04*06*74	64/ 64		13 4/140A.B	(49)	ARC 3.5-FT HYPERSONIC	ERSONIC		186		UNASSIGNED
AA2	10+30+75	10*30*75 - 11*01*75	40/ 40	0	TUNNEL CALIB.	(°)	ARC 40X80-FT SUBSONIC	UBSONIC		47.1		UNASSIGNED
AA3A	1:+10+71	1*10*71 - 01*31*71	300/300	0	PRE-ATP	(o)	ARC 11-FT TRANSONIC	SONIC		809	2255	PUBLISHED,
AA3B	2= 1=71	2+ 1+71 - 02+15+71	100/ 100	0	O PRE-ATP	(0)	ARC 9X7-FT SUPERSONIC	ERSONIC		809	2255	PUBL I SHED

APPENDIX A

TABLE A2 - WIND TUNNEL TESTING BY TEST NUMBER - HEATING TESTS

							-			}	700
JEST No.	TESTING SCHED. CO	ING COMPL.	HOURS EST/CHG	RS CHG	RUNS	MODEL REF.	(ID)	FACILITY WIND TUNNEL	EL NO.	NO.	DDCUMENT STATUS
OH1A-1	9*19*72 -	09+26+72	10/	9	130	PRE-ATP/001	(6)	LARC MACH & VARTABLE DENSITY			
0H1A-2	9+19+72 -	- 09*26*72	10/	10/ 100	120	PRE-ATP/001	. (4				UNASSIGNED
0H1A-3	9*19*72	- 09+26+72	10,	10/ 100	120	PRE-ATP/001		LARC MACH & VARIABLE DENSITY			UNASSIGNED
0H1A-4	9*19*72 -	- 09*26*72	10/ 100	8	120	PRE-ATP/001	(38)	I ABC MACH & VARIABLE DENSITY			UNASSIGNED
0H1B	11+ 6+72 -	1:*08*72	40/	(4 4::	32	PRE-ATP/001	(4	TARC MACH & VARIABLE DENSITY			UNASSIGNED
0H2	4*18*73 - 06*01*73	06+01+73	40/ 144	144	8	TPS TILES	(15)	ARC 3.5-FT HYPERSONIC	3283		
OH3A	6*28*73 -	- 06+30+73	40/	16	36	3/139B	(21)	AEDC B / HYPERSONIC	198 - 788	2035	PUBLISHED
0H3B	7* 9*73 - 07*11*73	07+11+73	40/	23	147	3/1398	(21)	AEDC B / HYPERSONIC	289	200	
0H4A	11+12+73 -	12+05+73	20/	50	57	3/139	(29)	AEDC B / HYPERSONIC	352	244	
0H4B	9*29*73 - 10*04*73	10*04*73	48/	38	224	3/139	(22)	AEDC B / HYPERSONIC	352	0000	
A-3	9*26*73 = 09*26*73	Ú9*26*73	/8	&	09	3/139B	(21)	AEDC B / HYPERSONIC	352	2225	
	F :	02+1:1+74	48/	26	39	3/139	(22)	ARC 3.5-FT HYPERSONIC	183	2151	
0H8F	1	07+16+74	340/ 334	334	99	2A/089B	(25)	MSFC IMPULSE BASE FLOW FAC.	027	2382	
6H0	0 - 62*23 - 0	- 09*21*73	16/		61	3/139	(29)	AEDC B / HYPERSONIC	353	2251	
0H10	8*17*73 - 0	09*04*73	96/ 104	104	35	3/139	(26)	ARC 3.5-FT HYPERSONIC	17.1	2085	
OH11	10+24+73 - 1	11+01+73	40/	37	23	3/139	(29)	AEDC F / HYPERSONIC	VA35A	24.6	rubi Itilia
J 9H12	10*29*73 - 12*13*73	2*13*73	80/ 1	145	32 3	3/139	(31)	CALSPAN HYPERSONIC SHOCK	9	2154	ביים ביים ביים ביים ביים ביים ביים ביים
0H13	6*13*73 - 06*13*73	6+13+73	/8	80	18	2A/089B	(41)	LARC MACH 8 VARIABLE DENSITY		2096	PIBI ISHED
0H14		10+18+73	16/	9.	29 3	3A/139B	(05)	LARC MACH 8 VARIABLE DENSITY		2117	PUBLISHED
OH15		09*20*73		96	32 F	FLAT PLATE	(23)	ARC 3.5-FT HYPERSONIC	173	2385	PUBL I SHED
ACZHO		- 08*22*74	12/	12	82 3	3/1398	(21)	AEDC B / HYPERSONIC	83A	2252	PUBL I SHED
0H25B	1	02+03+75	24/	23 1	153 5,	5/140C	(99)	AEDC B / HYPERSONIC	83 A	2366	PUBLISHED
0H25		07*29*74	80/	96	56 4	4/140B	(22)	ARC 3.5-FT HYPERSONIC	199	2193	PIRI ISHED
0H38	6+21+74 - 07	07*18*74 1	160/ 320	20	91 4	4/140B	(61) A	ARC 3.5-FT HYPERSONIC	- 46 t	2171	PUBLISHED
0H39A	11*21*74 - 11*28*74		84/ 59		622 5,	5/140C	(60)	AEDC B / HYPERSONIC	74A	2241	PUBLISHED
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TEST	TI SCHED.	TESTING COMPL.	HOURS EST/CHG	HOURS T/CHG	RUNS	MODEL REF.	(10)	WIND TUNNEL FACILITY	NO.	DOCUMENT NO. S	VT ST ATUS
96EH0	1* 8*75	- 01+09+75	12/	5	80.	5/1400	(09)	AEDC B / HYPERSONIC	744	2241	PHB1 TCHED
0H40.	1*30*73	- 02+05+73	/96	9	52	2A/089B	(31)	LARC MACH 8 VARIABLE DENSITY	3619	2049	PUBL I SHED
DH4 1A	3+19+73	- 03*28*73	40/	64	78	2A/089B	(88)	LARC MACH B VARIABLE DENSITY	3778	2075	PUBL I SHED
0H4 1B	5* 8*73	- 05*10*73	40/	4	70	2A/089B	(38)	LARC MACH 8 VARIABLE DENSITY	4060/72		PUBL I SHED
0H42A	5+14+73	1	20/	20	50	3/139,139A	(46)	LARC MACH 8 VARIABLE DENSITY	4080		PUBLISHED
0H42B	5*25*73	5*25*73 - 06*01*73	40/	48	64	3/139, 139A	(46)	LARC MACH 8 VARIABLE DENSITY	4080	2101	PUBLISHED
0H42C	6+14+73	- 06*15*73	20/	16	36	3/1394, W/CAN	(46)	LARC MACH 8 VARIABLE DENSITY	4080	2101	PUBL I SHED
0H43	12+ 2+73	- 12+21+73	160/	128	92	TPS TILES	(15)	ARC 3.5-FT HYPERSONIC	182	2250	PUBLISHED
0H44	10+24+73	- 10+30+73	180/	80	46	FLAT PLATE	(23)	ARC 3.5-FT HYPERSONIC	177	2386	PUBL I SHED
0H45	11. 2.73	11* 2*73 - 11*09*73	40/	46	22	3A/139B	(20)	LARC 20-IN FREDN	121	2109	PUBLISHED
0H46	11+12+73	11+12+73 - 12+07+73	40/	72	8	4/1408	(06)	LARC MACH 8 VARIABLE DENSITY	4556	2350	PUBLISHED
-W OH49A	4+ 3+74	4+ 3+74 - 04+06+74	216/	17	87	3/139B	(22)	AEDC B / HYPERSONIC	525	2355	PUBLISHED
-31	7* 2*74	7* 2*74 - 07*12*74	72/	67	454	4/1408	(22)	AEDC B / HYPERSONIC	, 57A	2222	PUBLISHED
OHEOA	3*29*74	- 04+11+74	/8	16	99	5/1400	(82)	AEDC B / HYPERSONIC	526	2285	PUBLISHED
0H208	7*12*74 -	- 07+17+74	/96	27	220	5/1400	(83)	AEDC B / HYPERSONIC	58A	2358	PUBLISHED
0H51-1	6+26+74 -	- 07+03+74	24/	30	20	3/1398	(64)	LARC 31-IN CONT-FLOW HYP.	112	2368	PUBLISHED
0H51-2	6*26*74 -	- 07*03*74	12/	180	280	3/139B	(46)	LARC 31-IN CONT-FLOW HYP.	112	2368	PUBLISHED
0HS (-3	6*26*74	6*26*74 - 07*03*74	12/ 100	<u>8</u>	8	4/140B	(06)	LARC 31-IN CONT-FLOW HYP.	112	2368	PUBLISHED
OH52.	5* 6*74 -	- 05*15*74	16/	46	35	3/1398	(29)	AEDC B / HYPERSONIC	524	2330	PUBL I SHED
OH53A	4* 7*76 -	- 04*13*76	40/	9	36	5/140C	(83)	ARC 3.5-FT HYPERSONIC	216	2317	PUBL I SHED
0H538	4 + 14 + 76	- 04*23*76	40/	80	23	5/1400	(82)	ARC 3.5-FT HYPERSONIC	216	2317	PUBLISHED
OH54A	10* 3*74	10* 2*74 - 10* 8*74	/96	32.	117	5/1400	(85)	AEDC B / HYPERSONIC	82A	2301	PUBLISHED
DH548	7*21*75	7*21*75 - 07*25*75	48/	52	124 5	5/1400	(82)	AEDC B / HYPERSONIC	82A	2342	PUBLISHED
0H54C	8*26+75 -	8*26*75 - 09*02*75	48/	48	120 5	5/1400	(82)	AEDC B / HYPERSONIC	82A	2342	PUBLISHED
0H56	12* 6*77 - 12*10*77	12+10+77	48/	36	255 W	WING TIP SEAL	(16)	AEDC B / HYPERSON*C	R3A	2410	PUBL I SHED

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TEST NO.	TESTING SCHED. COMPL.	HOURS EST/CHG	RUNS .	RUNS MODEL Ref.	(01)	(ID) FACILITY WIND TUNNEL	NO.	DOCUMENT ND. ST ATUS	T ATUS
9H109	10*27*80 - 11*24*80 48/ 40	48/ 40		0 5/1400	(95)	(56) AEDC B / HYPERSONIC	. 65	2490	2490 PUBLISHED
DH110	11+17+80 - 01+30+81	80/ 200		0 5/1400	(09)	ARC 3.5-FT HYPERSONIC	253	2495	2495 PUBLISHED
DH111	9*24*81 - 09*30*81	32/ 32	•	0 5/1400	(09)	AEDC B / HYPERSONIC	ţ.	2496	2496 PUBLISHED
3H400	8* 1+79 - 09+01+79	36/36	124	124 140C SILTS	(35)	ARC 11-FT TRANSONIC	865	5472	5472 PUR TCHEN

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	TEST NO.	TESTING SCHED. CC	COMPL.	HOURS EST/CHG	RS CHG	RUNS	REF.	MODEL	(10)	FACILITY	TUNNEL		NO.	DOCUMENT STATUS
	IH.	12* 3*73 - 12*14*73	12+14+73	100/ 100	<u>6</u>	‡	3/139	•	(22)	LARC UNITARY PLAN		1071	2153	PUBL I SHED
	1H2	9* 4*73 - 09+11+73	09+11+73	/08	Ş	7.	3/139	J	(56)	ARC 3.5-FT HYPERSONIC	υ	171	2085	PUBLISHED
	113	10+31+73 - 11+09+73	11+09+73	128/	128	79	3/139	J	(22)	APC 3.5-FT HYPERSONIC	υ	178	2136	PUBL I SMED
	IH4	11-12-73 - 11-16-73	11+16+73	40/	5 .	47	3/139	J	(56)	LARC UNITARY PLAN		1059	2138	PUBL I SHED
	145	1+21+74 - 07+22+74	07+22+74	120/	105	90	2A/089B	J	(61)	CALSPAN 32-IN LUDWIEG	ø	181	2308	PUBL I SHED
	11111	4+ 1+78 - 04+18+78	04+18+78	80/	79	O 2	5/140c	J	84)	LERC 10X10-FT SUPERSONIC	ONIC	045	2428	PUBL I SHED
	1H15	8+13+73 - 08+17+73	08+17+73	.64/	72	9	2A/089B	J	=======================================	ARC 3.5-FT HYPERSONIC	O	172	2098	PUBL I SHED
	IH16	7* 6*73 - 07*13*73	07*13*73	32/	8	ā .	2A/089B	J	?	LARC UNITARY PLAN		1041	2166	PUBLISHED
	TH17	10* 9*73 - 10*16*73	10+16+73	40/	8	59	2A/089B	J	£	LARC MACH 8 VARIABLE DENSITY		646	2105	PUBL I SHED
	IH18	10+19+73 - 10+30+73	10+30+73	40/	9	22	2A/089B	J	£	LARC 20-IN FREDN		118	2110	PUBL I SHED
A-	IH19A	12+14+73 - 12+26+73	12+26+73	40/	9	22	2A/089B	•	50)	LARC HYPERSONIC NITROGEN		28	2157	PUBLISHED
34	1H19B	12+27+73 - 01+08+74	01+08+74	20/	9	22	2A/089B	_	20)	LARC HYPERSONIC NITRUGEN		28	2157	PUBLISHED
	1H20	1+18+74 - 02+06+74	02+06+74	192/ 192	192	105	3/139	. •	22)	ARC 3.5-FT HYPERSONIC		185	2148	PUBLISHED
	IH21	10+29+73 - 12+13+73	12+13+73	80/ 145	145	31	3/139	_	37)	CALSPAN HYPERSONIC SHOCK		100	2164	PUBLI SHED
	IH27	9+ 7+74 - 09+25+74	09+25+74	961 /08	196	65	TPS TILES		15)	ARC 3.5-FT HYPERSONIC		200	2210	PUBL I SHED
	IH28-1	5+20+74 - 05+24+74	05+24+74	/08	8	24	2A/089B	<u> </u>	20	ARC 3.5-FT HYPERSONIC		195	2180	PUBL I SHED
	IH28-2	5+20+74 - 05+24+74	05+24+74	30/	38	15	2A/089B	_	20)	ARC 3.5-FT HYPERSONIC		195	2180	PUBL I SHED
	TH33A	10+14+74 - 10+18+74	10+18+74	32/	32	ō	5/1400	_	37)	CALSPAN HYPERSONIC SHOCK		120	2249	PUBLISHED
	1H33B	12+ 5+74 - 12+19+74	12+19+74	48/	8	24	5/1400	_	37)	CALSPAN HYPERSONIC SHOCK		131	2249	PUBL I SHED
	IH34	5* 5*75 - 09*03*75	09+03+75	240/	264	. 57	5/140C		19)	LERC 10X10-FT SUPERSONIC		038	2282	PUBL 1 SHED
	1H39	9+22+76 - 04+14+77	04-14-77	240/ 226	226	163	5/140C	J	19)	LERC 10X10-FT SUPERSONIC		120	2435	PUBLISHED
	IH41A	3+31+75 -	5+21+75	48/	57	318	5/140C	J	(09	AEDC A / SUPERSONIC		44	2240	PUBL I SHED
	IH4 18	12*11*75 - (01+09+76	78/	80	300	5/140c	J	(09	AEDC A / SUPERSONIC		4 A	2295	PUBL 1 SHED
	IH42	4*26*76 - 05*26*76	05+26+76	192/	218	57	5/1400	_	. 26)	ARC 3.5-FT HYPERSONIC		217		UNASSIGNED
	IH43	12*17*75 - 02*23*76	02*23*76	120/	250	9	5/140C		29)	CALSPAN HYPERSONIC SHOCK		189	2319	PUBLISHED
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PHASE C/D SSV WIND TUNNEL TESTING PER TEST NUMBER

TEST NO.	TESTING SCHED. COMPL.	HOURS EST/CHG	RUNS	MODEL REF.	(ar)	WIND TUNNEL FACILITY	NO.	DOCUMENT NO. S	IT ST ATUS
1147	3* 8*76 - 03*19*76	40/ 31	178	5/1400	(09)	AEDC A / SUPERSOMIC	J3A	2312	PUBL I SHED
1148	4+17+75 - 05+08+75	240/ 256	125	5/140c	(09)	ARC 3.5-FT HYPERSONIC	211	2248	PUBL I SHED
IH51A	7+14+77 - 07+27+77	80/ 118	62	FLAT PLATE	(58)	ARC 3.5-FT HYPERSONIC	228	2393	PUBL I SHED
114518	7+15+78 - 07+24+78	09 /09	0	FLAT PLATE	(28)	ARC 3.5-FT HYPERSONIC	239	2429	PUBLISHED
1H51C	12*26*78 - 02*16*79	500/ 632	0	FLAT PLATE	(89)	ARC 3.5-FT HYPERSONIC	241	2448	PUBLISHED
IHS 1D	5* 1*79 - 06*00*79	240/ 240	٥	FLAT PLATE	(88)	ARC 3.5-FT HYPERSONIC	244	2461	PUBLISHED
1468	10+12+76 - 12+08+76	400/ 628	0	5/1400	(09)	ARC 3.5-FT HYPERSONIC	222	2357	PUBLISHED
1H72	1+ 3+77 - 01+10+77	60/ 56	Ö.	5/1400	(09)	AEDC A / SUPERSONIC	K2A	2372	PUBL I SHED
1113	12+ 1+77 - 01+23+78	160/ 160	Q	5/1400	(05)	ARC 3.5-FT HYPERSONIC	233	2407	PUBLISHED
1H75	10+ 3+77 - 12+12+77	200/ 320	₹,	5/1400	(61)	CALSPAN 32-IN LUDWIEG	8	2453	PUBLISHED
1483	1+25+78 - 03+10+78	200/ 102	4	5/1400	(61)	LERC 10X10-FT SUPERSONIC	440	2440	PUBLISHED
1485	4+19+78 - 04+26+78	60/ 65	337	5/1400	(09)	AEDC A / SUPERSONIC	S.	2431	PUBL I SHED
7-3 130 130	1+30+78 - 03+10+78	160/ 116	73	5/1400	(09)	ARC 3.5-FT HYPERSONIC	234	2412	PUBLISHED
66HI 5	8+28+77 - 09+07+77	80/ 79	. 0	5/140c	(86)	ARC 3.5-FT HYPERSONIC	230	2452	PUBLISHED
IH100	6*20*77 - 06*23*77	16/ 32	. o	GAS TEMP PROBE		ARC 3.5-FT HYPERSONIC	227	2418	PUBLISHED
IH102-1	5+ 1+79 - 06+01+79	26/ 26	•	5/1400	(O)	AEDC A / SUPERSONIC	B67	2464	PUBL I SHED
IH102-2	5* 1*79 - 06*01*79	12/ 12	0	5/1400	(26)	AEDC A / SUPERSONIC	B67	2464	PUBL I SHED
IH102-3	5* 1*79 - 06*01*79	10/ 10	•	5/1400	(83)	AEDC A / SUPERSONIC	B67	2464	PUBLISHED
IH103-1	10* 1*79 - 11*01*79	100/ 100	0	5/1400	(09)	ARC 3.5-FT HYPERSONIC	245	2467	PUBL I SHED
IH103-2	10+15+79 - 11+01+79	100/ 100	0	5/140¢	(26)	ARC 3.5-FT HYPERSONIC	245	2467	PUBL I SHED
1H104	2* 7*80 - 04*17*80	80/ 80	0	5/1400	(09)	ARC 3.5-FT HYPERSONIC	250	2480	PUBLISHED

NUMBER
TEST
PER
TESTING
TUNNEL
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SSV
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PHASE

	DDCUMENT NO. STATUS	2216 PUBLISHED	UNASSIGNED	UNASSIGNED	UNASSIGNED
	NO.	1115	1159	EOA	E6A
	TUNNEL				
•	(ID) FACILITY	(0) LARC UNITARY PLAN	(Q) LARC UNITARY PLAN	AEDC A / SUPERSONIC	AEDC A / SUPERSONIC
	(ID)	6	6.)	(o)	.6
	MODEL				
	REF.	SRB	SRB	SRB	SRB
	RUNS	42	124	. •	0
	RS	80/ 80	156	12/ 100	12/ 8
	HOURS EST/CHG	80/	80/	12/	12/
	TESTING COMPL.	7+29+74 - 08+07+74	10*31*75 - 11*18*75	12*29*75 - 02*20*76	3+10+76 - 04+19+76
	TES' SCHED.	7+29+74	10+31+75	12*29*75	3*10*76
	TEST.	SH12F	SH13F	SH15F	SH16F

PHASE C/D SSV WIND TUNNEL TESTING PER TEST NUMBER	(ID) FACILITY WIND TUNNEL DOCUMENT STATUS	(O) AEDC F / HYPERSONIC 25A 2218 PUBLISHED	(O) CALSPAN HYPERSONIC SHOCK GOO UNASSIGNED
SV WIND TUNNEL T	MODEL Ref.		
SE C/D SE	RUNS	0 ET	0 ET
PHA	HOURS EST/CHG	80/ 40	80/ 32
	TESTING SCHED. COMPL.	9* 1*74 - 09*09*74	6* 1.*75 - 06*05*75
	TEST.	#1#	H2F

AUG 01, 1984	DOCUMENT NO. STATUS	UNASSIGNED	UNASSIGNED
	ON	29A	DSA
	TUNNEL		
PHASE C/D SSV WIND TUNNEL TESTING PER TEST NUMBER	WIND FACILITY	AEDC F / HYPERSONIC	29) AEDC B / HYPERSONIC
TESTING F	(QI)	(62)	(53)
ND TUNNEL	MODEL		
SSV WIN	REF.	4/140B	4/140B
SE C/D	RUNS	30	22
ЬНА	HOURS EST/CHG	24/ 64	16/ 11
	TESTING SCHED. COMPL.	1+13+76 - 01+23+76	9* 3*75 - 01*23*76
	TEST. NO.	MH1:	MH2

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		PHASE C/	PHASE C/D SSV WIND TUNNEL TESTING PER TEST NUMBER	TESTING	PER TEST NUMBER		AUG 01, 1984	1984
TESTING SCHED. COMPL.	HOURS EST/CHG	RUNS	REF. MODEL	(ID)	FACILITY WIND TUNNEL	UN.	NO.	DOCUMENT
11+15+72 - 01+01+73	160/ 80	30 200) TPS TILES	(15)	LARC HIGH RE'S NUMBER HELIUM	M 100		UNASSIGNED
1*21*74 - 01*29*74	32/ 32	6	3/139	(22)	AEDC F / HYPERSONIC	291	2197	PUBL I SHED
9*22*75 - 09*25*75	24/ 4	40 0	ET/SPIKE	ô •	AEDC A / SUPERSONIC	E 1A	2276	PUBL I SHED
3*15*76 - 04*06*76	40/ 4	40 0	ET/SPIKE	. 6 	ARC 3.5-FT HYPERSONIC	215	2313	PUBL I SHED
5* 1*78 - 05*05*78	52/ 5	52 0	ET/SPIKE	60)	AEDC A / SUPERSONIC	420	2422	PUBL I SHED
7* 1*78 - 07*15*78	8 /08	80 0	ET/SPIKE	(o)	ARC 3.5-FT HYPERSONIC	247	2423	PUBL I SHED

TEST.

FH10 FH13 FH14 FH15 FH16

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APPENDIX A

TABLE A3 - WIND TUNNEL TESTING BY TEST NUMBER - STRUCTURAL DYNAMICS TESTS

T STATUS	SHED	SHED	SHED	SHED	SHED	SHED	SHED	SHED	SHED	SHED	IN PROCESS	UNASSIGNED	UNASSIGNED	UNASSIGNED	SHED	IN PROCESS	SHED	SHED	PUBLISHED	SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED
DOCUMENT	PUBL I SHED	PUBL 1 SHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	NI PR	UNASS	UNASS	UNASS	PUBLISHED	M NI	PUBL I SHED	PUBL I SHED	PUBL	PUBL I SHED	PUBL	PUBL	PUBL.	PUBL	PUBL
	2094	2067	2401	2450	2450	2365	2363	2179	2179	2450	2287					2339	2458	2458	2458	2463	2470	2505	2505	2505	2505
2																	_	_	_	•		_			-
8 0.	545	544	705	9	154	246	246	705	705	116	166	266	300	258	145	167	369	369	369	380	381	55.1	551	551	551
TUNNEL	BLOWDOWN	BLOWDOWN	ပ			DYNAMIC	DYNAMIC		ပ္ -		ည	DYNAMIC	DYNAMIC	DYNAMIC		U		10				ပ	ပ	ပ	U .
QNIM	TRANSONIC	TRANSONIC	SUPERSONIC	TRANSONIC	TRANSONIC	TRANSONIC	TRANSONIC	TRANSONIC	SUPERSONIC	2X2-FT TRANSONIC	SUPERSONIC	TRANSONI	TRANSONIC	TRANSONIC	11-FT TRANSONIC	2X2-FT TRANSONIC	11-FT TRANSONIC	9X7-FT SUPERSONIC	11-FT TRANSONIC	TRANSONIC	11-FT TRANSONIC	16-FT TRANSONIC	TRANSONI	TRANSONIC	TRANSONIC
FACILITY	LARC 26-IN TRANSONIC BLOWDOWN	LARC 26-IN TRANSONIC BLOWDOWN	ARC 8X7-FT	ARC 2X2-FT TRANSONIC	ARC 2X2-FT	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	ARC 11-FT TRANSONIC	ARC 9X7-FT	ARC 2X2-FT	ARC 9X7-FT	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	ARC 11-FT	ARC 2X2-FT	ARC 11-FT	ARC 9X7-FT	ARC 11-FT	ARC 11-FT TRANSONIC	ARC 11-FT	AEDC 16-F1	AEDC 16-FT TRANSONIC	AEDC 16-FT	AEDC 16-FT
(10)	(23)	(24)	(11)	 (40)	(40)	(54)	(55)	(81)	(81)	(82)	(82)	(61)	(80)	(22)	(96)	(32)	(96)	(81)	(96)	(96)	(96)	(601)	108)	(109)	(8Ci)
MODEL REF.	2A/089B	ATP.	2A/089B	PANELS	PANELS	4/140B	4/1408	HRSI TILE	HRSI TILE	LRSI TILE	LRSI TILE	5/1400	5/140C FLUTTER	4/140A.B	LRSI TILES	TILE PANEL	HRSI TILE	HRSI TILE	LRSI TILES	TPS TILES	TPS TILES	TPS	TPS	TPS	TPS
UNS	39			36				96	36	42	45	4	0.	16	55	83	0	0	0		0	0	0	0	0
~	72	24	22	260	96	20	120	156	120	· • 4	21	120	120	58	56	08	. 9	04	9	œ	œ	\$	24	&	80
HOURS EST/CHG	\0 8	<u>5</u>	58/	154/ 260	140/ 96	120/ 104	120/ 120	/09	60/ 120	80/	16/	120/ 120	200/ 120	80/	84/	/96	/09	/09	8	. 8	8	8	24/	8	8
ING COMPL.	00*10*73	06*07*73	1 08*14*73	10*09*74	01*15*76	09*12*74	08*30*74	7*11*74 - 07*18*74	7*19*74 - 07*29*74	1*11*76 - 01*29*75	11+26+75	10*30*75	5 - 2 - 05 + 26 + 78	4* 7*75 - 04*10*75	+1+30+77	37*76*70 - 37*38***	4*16*79 - 04*19*79	5* 7*79 - 05*11*79	4*18*79 - 04*20*79	42 3*79 - 07*05*79	0* 3*79 - 04*03*79	3* 4*80 - 03*05*80	3* 6*80 - 03*08*80	4*17*80 - 04*18*80	08*00*60 - 08*0 *8
TESTING SCHED. COMPL.	6	6+ 6+73 - O6*07*73	6* 4*/3	0* 0*0* - 40*00*74	44*10*75 - 01*15*76	0 - 2 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	8*12*74 - 08*30*74	7+11+74	7*19*74	1*11*76 -	11*24*75 - 11*26*75	10*22*75 - 10*30*75	5. 8.78 °	4* 7*75 -		11.77.11	0/+0 +/	- 62 + 2 + 3	4*18*79	- 67*6 *1	0 3 3 7 9	C 48		4*17*80	8* 0*80
TEST NO.	Š	160	0.52	5 4 5 C	4 to 0	0.545 0.45	020	037 088	E BRSC	0842		-41	0521	032.0	0322	0531	2650	0230	0567	0547	, t	US45	0 0	03468	05460

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TEST NO.	TE SCHED.	TESTING COMPL.	HOURS EST/CHG	JRS YG	RUNS	MODEL REF.	(OI)	WIND TUNNEL FACILITY	8	DOCUMENT NO. S	NT ST ATUS
		•	,				,				
0S46E	9*15*80	9*15*80 - 10*20*80	æ_ -	œ	0	TPS	(108)	AEDC 16-FT TRANSONIC	551	2505	PUBLISHED
0S46F	10* 1*80	10* 1*80 - 10*02*80	8	ec	•	TPS	(108)	AEDC 16-FT TRANSONIC	551	2505	PUBL I SHED
05466	12+10+81	12*10*81 - 12*11*81	8/	17	•	TPS	(108)	AEDC 16-FT TRANSONIC	551	2505	PUBLISHED
0547	11* 1*79	1,1* 1*79 - 12*20*79	160/ 160	160	0	TPS	(110)	AEDC 1-FT TRANSONIC			UNASSIGNED
0549	1+28+81	1*28*81 - 02*04*81	40	\$	0	TPS	(311)	AEDC 16-FT TRANSONIC	556	2483	PUBL I SHED
0550	4+30+81	4+30+81 - 06+01+81	40/ 113	113	0	TPS	(113)	ARC 11-FT TRANSONIC	425	2485	PUBL I SHED
0S51A	11*17*80	11*17*80 - 01*29*81	20/	11	0	TPS TILE	(96)	ARC 11-FT TRANSONIC	436	2487	PUBLISHED
05518	11*17*80	11*17*80 - 11*19*80	20/	S	0	TPS TILE	(96)	ARC 11-FT TRANSONIC	436	2487	PUBLISHED
0S51C	1*27*81	1*27*81 - 01*29*81	27/	27	•	TPS TILE	(96)	ARC 11-TT TRANSONIC	436	2487	PUBLISHED
0S53A	12+12+80	12*12*80 - 01*01*81	80/ 104	\$	0	TPS	(717)	LARC 8-FT TRANSONIC PRESSURE	905	2503	PUBL I SHED
0S53B	3*23*81	3*23*81 - 04*01*81	80/ 108	108	0	TPS	(719)	LARC 8-FT TRANSONIC PRESSURE	606	2503	PUBLISHED
0\$55	2+23+81	2*23*81 - 03*02*81	/08	64	0	TILE	(81)	ARC 9X7-FT SUPERSONIC	794	2465	PUBLISHED
0556	8+26+81	8*26*81 - 08*27*81	8/	∞.	•	TPS TILE	(108)	AEDC 16-FT TRANSONIC	809	2489	PUBL I SHED
0557	8*26*81	8*26*81 - 08*27*81	88	∞	•	TILE	(81)	ARC 9X7-FT SUPERSONIC	208	2465	PUBLISHED
0980	6+ 9+81	6* 9*81 - 06*09*81	8/	∞	0	TPS TILE	(96)	ARC 11-FT TRANSONIC	500	2506	PUBLISHED

				PHASE		C/D SSV WIND TURNEL TESTING PER TEST NUMBER	TESTING	PER TEST NUMBER		AUG 01, 1984	1984	
TEST NO.	TESTI SCHED.	TESTING COMPL.	HOURS EST/CHG		RUNS	MODEL REF.	(1D) FA	(ID) FACILITY		NO. NO.	DOCUMENT	STATUS
	8* 2*73	8* 2*73 - 08*08*73	09 /09	9	21	2A/089B	=======================================	ARC 11-FT TRANSONIC	705	5 2401		PUBLISHED
101E	7*23*73	7*23*73 - 08*01*73	. /09	64	4	2A/089B	(11)	ARC 9X7-FT SUPERSONIC	705	5 2401		PUBL I SHED
1510	8* 9*73	8* 9*73 - 08*11*73	12/ 24	. 4	Ö	2A/089B	(11)	ARC 8X7-FT SUPERSONIC	705		2401 PUB	PUBLISHED
AC21	14* 7*75	- 11*14*75	144/ 120	120	53	5/1400	(84)	ARC 11-FT TRANSONIC	-	113 2284		PUBL I SMED
9001	0*25*75	0*25*75 - 10*29*75	09 /09	09	67	5/140C	(84)	ARC 9X7-FT SUPERSONIC	-	113 2284		PUBL I SHED
1325	248140	9-23-73 10-18-73 - 10-24-73	120/	28	94	2A/089B	(06)	LARC 26-IN TRANSONIC BLONDOWN	DOWN 547	17 2146		PUBLISHED
155A	10* 2*73	10* 2*73 - 10*11*73	80/ 74	. 4	126	2A/089B	(13)	MSFC 14-IN TRANSONIC	ig .	582 2158		PUBL I SHED
1001 1001	3*20*73	3*20*73 - 05*27*73	20/	20	. 02	2A/089B	(13)	MSFC 14-IN TRANSONIC	Š	559 2158		PUBL I SHED
04.51	9+18+78	9*18*78 - 10*08*78	200/ 128	128	0	5/140C FLUTTER	(80)	LARC 16-FT TRANSONIC DYNAMIC		308	NO.	UNASSICAED
1520	7*24*78	7*24*78 - 08*25*78	200/ 216	216	0	0 5/140C + TOWER	(100)	LARC 16-FT TRANSONIC DYNAMIC		306	SNO.	UNASSIGNED

AUG 01.1984	DOCUMENT ND. STATUS	UNASSIGNED	UNASSIGNED	2338 PUBLISHED	2341 PUBLISHED	237 PUBLISHED	UNASSIGNED
A A W	 Q	1160	1474	1170	1490	1493	691
	WIND TUNNEL	LOW SPEED	- TRANSONIC	LOW SPEED	- TRANSONIC	- TRANSONIC	
PHASE C/D SSV WIND TUNNEL TESTING PER TEST NUMBER	WI FACILITY	UNIV. OF WASH. LOW SPEED	THE BOEING CO TRANSONIC	UNIV. OF WASH. LOW SPEED	THE BOEING CO TRANSONIC	THE BOEING CO TRANSONIC	GENERAL DYNAMIC - LOW SPEED
TESTING	(10)	(8)	(45)	(8)	(45)	(45)	(8)
SSV WIND TUNNEL	MODEL REF.	165 140A.B/747	140A.B/747	140A.B/747	140A.B/747	140A.B/747	140A.B/747
E C/D	RUNS	165	165	129	95	192	203
PHAS	HOURS EST/CHG	80/ 95	95/ 95	40/ 80	40/ 64	24/ 93	60/ 58
	ING COMPL.	f 6* 9*75 - 06*13*75	6* 9*75 - 06*16*75	9*12*75 - 09*15*75	9+29+75 - 10+02+75	11+05+75	02+11+76
	TESTING SCHED.	- 9*75 -	- 52.46 +9	9+12+75 -	9+29+75	11* 3*75 - 11*05*75	2* 5*76 - 02*11*76

TEST NO.

CS1 CS2

CS3 CS4 cs5

cs6

UNASSIGNED

NUMBER
TEST
PER
TESTING
TUNNEL
MIND
SSV
2
PHASE

	NT STATUS	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	
	DOCUMENT	UNAS	UNA	UNAS	UNAS	UNAS	UNAS	UNAS	UNAS	UNAS	UNAS	UNAS	UNAS	UNAS	UNAS	UNAS	
•	N 0	-															
		196	4.	114	616	623	989	FSA	638	626	614	F9A	302	281	281	648	
	TUNNEL																
-	MIND	TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	MSFC 14-IN TRANSONIC	TRANSONIC	TRANSONIC	UPERSONIC	TRANSONIC	TRANSONIC	TRANSONIC	UPERSONIC	TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	TRANSONIC	
	FACILITY	ARC 14-FT TRANSONIC	ARC 9X7-FT	ARC 8X7-FT	MSFC 14-IN	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	AEDC A / SUPERSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	AEDC A / SUPERSONIC	ARC 14-FT TRANSONIC	ARC 9X7-FT	ARC 8X7-FT	MSFC 14-IN TRANSONIC	
	(10)	6	6	6	6	ô	6	ô	6	(o	6	6	6	6	6	6	
	MODEL		•	J	J	•	•	•	_	_	_	_	_	•	•	•	
	REF.	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	SRB	
	RUNS .	0	Ö	0	. Ó	O	Õ	.0	0	Ö	0	0	0	Ö	Ω.	0	
	RS CHG	162	60/ 120	09 /09	104	40/ 90	158	12/ 12	80/ 131	192	40/ 44	45	80	40/ 40	86	240	
	HOURS EST/CHG	120/ 162	/09	/09	104/ 104	40/	120/ 158	12/	/08	180/ 192	40/	64/ 45	80/ 80	40/	52/	160/ 240	
	TESTING SCHED COMPL.	8* 4*76 - 08*25*76	7*26*76 - 08*04*76	7*19*76 - 07*23*76	1*27*75 - 02*13*75	4*12*75 - 04*12*75	9*22*75 - 10*20*75	4+75 - 04+05+75	11+14+75 - 12+08+75	5*27*75 - 06*27*75	2*15*75 - 02*21*75	1* 1*76 - 01*15*76	3+13+78 - 04+17+78	6*12*78 - 06*18*78	1:+ 6+78 - 11+22+78	7*20*77 - 09*03*77	•
	SCH	8	7.	7*	*	4	6	4	##	Ω,	2*1	.	9	6*1	*	7+2	
	TEST	SS13F	\$\$13FB	SS13FC	SSIME	SS 15F	SS 16F	SS17F	SS 18F	5S.19F	\$\$20F	SS22F	£255 45	SS28FB	SS28FC	SS30F	

(0)		HEA INT O OCT /OCT
H. 0)	O INT. VEH.	
(0)	INT VE	120/ 120 O INT VEH
н. (0)	INT. VE	120/ 120 O INT. VEH.
(O) IN	PRR ASCE	40/ 32 O PRR ASCENT
T (O) JPL 20-IN SUPERSONIC	PRR ASCFN	32/ 32 O PRR ASCENT

APPENDIX A

TABLE A4 - WIND TUNNEL TESTING BY FACILITY - NASA COMPLEXES

PER FACILITY	
TESTING PE	
TUNNEL	
C/D WIND	
HASE	

FACILITY	WIND	TUNNEL	Q	TEST NO.	TESTING SCHED.	ING COMPL.	HOURS R EST/CHG	RUNS	. MODEL	(ID)	NO DA	DATAMAN STATUS
ARC 40X80-FT SUBSONIC	SUBSONIC		462	DA 100	5*27*75 - 06*14*75	06*14*75	240/272	190	0V101(ALT)	1 (36)	2264	\$ 500 toling 1900
ARC 40X80-FT SUBSONIC	SUBSONIC		471	AA2	10+30+75 - 11+01+75	11+01+75	40/ 40	C	TIINNE! CALTR		9	TOBELLSHED
ARC 40X80-FT SUBSONIC	SUBSONIC		473	0A 164	11*28*75 - 12*01*75	12*01*75	80/ 80	, 22	DV101(A) T)	6	6	UNASSIGNED
ARC 40X80-FT SUBSONIC	SUBSONIC		479	0A 174	2* 2*76 - 02*27*76	02*27*76	240/264	165	0V101(ALT)	(9/)	7.43	
ARC 40X80-FT SUBSONIC	SUBSONIC		500	0A237	1*24*77 - 01*31*77	01*31*77	09 /09	33	60/ 60 32 ADS DEDRES	66		2502 FUBLISHED

WIND	TUNNEL	NO.	TEST	TESTING SCHED. COMPL.	OMPL.	HOURS RUNS EST/CHG	RUNS	MODEL Ref.	(10)	NO.	DATAMAN ND. STATUS
ARC 12-FT PRESSURE		028	MA13 .	4*15*74 - 05*03*74	03*74	120/176	0	GULFSTREAM 2	6		UNASSIGNED
ARC 12-FT PRESSURE		078	0A 159	6*23*75 - 07*08*75	08+75	160/152	20	140A,B/(ALT)	(45)	2265	2265 PUBLISHED
ARC 12-FT PRESSURE		135	LA66	10*20*75 - 10*24*75	24+75	80/80	56	140C/REMOTE ELE (44)	(44)	2281	PUBLISHED
ARC 12-FT PRESSURE	æ :	180	0A173	3*15*76 - 03*26*76	26*76	160/256	48	140C(ALT)	(45)	2304	PUBLISHED
ARC 12-FT PRESSURE		218	DA 101	9*13*77 - 11*11*77	11*77	160/160	373	373 VEH 102	(68)	2405	2405 PUBLISHED

PHASE C/D WIND TUNNEL TESTING PER FACILITY

AUG 01, 1984

FACILITY	ONIA	TUNNEL	8	TEST NO.	TESTING SCHED, ' COMPL.	TING COMPL.	HOURS F	RUNS	MODEL Ref.	(10)	NO.	DATAMAN STATUS
ARC 2X2-FT TRANSONIC	TRANSONIC		2	0S4A	9* 9*74 -	9* 9*74 - 10*09*74	154/260	36	PANELS	(04	2450	2450 PUBLISHED
ARC 2X2-FT TRANSONIC	TRANSONIC		154	0548	11+18+75	11*18*75 - 01*15*76	140/ 96	0	PANELS	(04)	2450	2450 PUBLISHED
ARC 2X2-FT TRANSONIC	TRANSONIC		116	0512	1+11+76 -	1+11+76 - 01+29+76	80/ 40	42	LRSI TILE	(82)	2450	2450 PUBLISHED
ARC 2X2-FT TRANSONIC	TRANSONIC		167	0532	7+15+76	7*15*76 - 07*27*76	96/80	6	TILE PANEL	(32)	2339	IN PROCESS
ARC 2X2-FT TRANSONIC	TRANSONIC		382	0A252	10+16+79	10+16+79 - 11+14+79	360/360	0	TILE	(101)	2473	PUBLISHED
				•								****

FACILITY	QNIA	TUNNEL	8.	TEST ND.	TESTING SCHED. COMPL.	TESTING COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(QI)	- N	DATAMAN ND. STATUS
ARC 6X6-FT	ARC 6X6-FT SUPERSONIC		929	0 4 3	10*24*72	10+24+72 - 11+10+72	200/320	214	ATP	(9)	2009	PUBLISHED
ARC 6X6-FT	ARC 6X6-FT SUPERSONIC		306	0A4 3	4+18+73 -	4+18+73 - 05+01+73	128/160	137	2A/089B	(81)	2050	PUBLISHED
ARC 6X6-FT	ARC 6X6-FT SUPERSONIC		630	1A29	9+12+73 -	9+12+73 - 09+25+73	80/184	=======================================	4/140A.B	(36)	2077	PUBL I SHED
ARC 6X6-FT	ARC 6X6-FT SUPERSONIC		630	DA63	9+25+73 -	9*25*73 - 9*28*73	64/ 80	6 0	4/140A.B	(96)	2077	PUBLISHED
ARC 6X6-FT	ARC 6X6-FT SUPERSONIC		109	0A59	3-13-74	3-13-74 - 3-21+74	120/293	150	4/140A.B	(67)	2159	PUBLISHED
ARC 6X6-FT	ARC 6X6-FT SUPERSONIC		633	FA6	7+10+74	7*10*74 - 08*19*74	40/584	0	DGIVE CYL	(°)		UNASSIGNED
ARC 6X6-FT	ARC 6X6-FT SUPERSONIC		033	FA7	8-20-74	8+20+74 - 08+28+74	40/166	•	OGIVE CYL	6		UNASSIGNED

711 IA8 2*12*73 - 03*12*73 80/160 54 ATP (6) 2173 PUBLISHED 085 CA23A 3*21*75 - 04*17*75 120/213 71 140C(MOD)/747 (48) 2243 PUBLISHED 085 CA23B 5*1*75 - 07*22*75 160/132 46 140C(MOD)/747 (48) 2275 PUBLISHED 150 0A220 11*11*75 - 11*21*75 120/110 142 VEH 101 (ADS) (57) 2286 PUBLISHED 143 IA137 4*26*76 - 05*03*76 40/56 43 ET FORETANK (68) 2316 PUBLISHED 121 CA13 6*8*76 - 07*01*76 160/193 54 140C(ALT)/747 (45) 2336 PUBLISHED 196 SS13F 8*4*76 - 08*25*76 120/162 0 SRB (0) N NNASSIGNED 302 SS27 3*13*78 - 04*17*78 80/80 0 SRB (0) N NNASSIGNED	WIND TUNNEL	NO.	TEST NO.	TESTING SCHED.	G COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(QI)	NO.	DATAMAN STATUS
CA23B 3*21*75 - 04*17*75 120/213 71 140C(MOD)/747 (48) 2243 I CA23B 5* 1*75 - 07*22*75 160/132 46 140C(MOD)/747 (48) 2275 I DA22O 11*11*75 - 11*21*75 120/110 142 VEH 101 (ADS) (57) 2286 I IA137 4*26*76 - 05*03*76 40/56 43 ET FORETANK (68) 2316 I CA13 6* 8*76 - 07*01*76 160/193 54 140C(ALT)/747 (45) 2332 I SS13F 8* 4*76 - 08*25*76 120/162 0 SRB (0)		7111	IA8	2*12*73 - 0	3*12*73	80/160	54	ATP	(9)	2173	
CA23B 5+ 1+75 - 07+22+75 160/132 46 140C(MOD)/747 (48) 2275 1 0A220 11+11+75 - 11+21+75 120/110 142 VEH 101 (ADS) (57) 2286 1 1A137 4+26+76 - 05+03+76 40/56 43 ET FORETANK (68) 2316 1 CA13 6+ 8+76 - 07+01+76 160/193 54 140C(ALT)/747 (45) 2332 1 SS13F 8+ 4+76 - 08+25+76 120/162 0 SRB (0)		085	CA23A	3*21*75 - 0	4+17+75	120/213	7.1	140C(M0D)/747	(48)	2243	PUBLISHED
0A220 11*11*75 - 11*21*75 120/110 142 VEH 101 (ADS) (57) 2286 F IA137 4*26*76 - 05*03*76 40/56 43 ET FORETANK (68) 2316 F CA13 6*8*76 - 07*01*76 160/193 54 140C(ALT)/747 (45) 2332 F SS ¹ 3F 8* 4*76 - 08*25*76 120/162 0 SRB (0) I SS27 3*13*78 - 04*17*78 80/80 0 SRB (0) I		285	CA23B	5+ 1+75 - 0	7+22+75	160/132	46	140C(MOD)/747	(48)	2275	PUBL I SHED
IA137 4*26*76 - 05*03*76 40/56 43 ET FORETANK (68) 2316 B CA13 6* 8*76 - 07*01*76 160/193 54 140C(ALT)/747 (45) 2332 B SS13F 8* 4*76 - 08*25*76 120/162 0 SRB (0) 0 SS27 3*13*78 - 04*17*78 80/80 0 SRB (0) 0		150	0A220	11+11+75 - 1	1+21+75	120/110	142	VEH 101 (ADS)	(57)	2286	PUBL I SHED
CA13 6* 8*76 - 07*01*76 160/193 54 140C(ALT)/747 (45) 2332 B SS13F 8* 4*76 - 08*25*76 120/162 0 SRB (0) 1 SS27 3*13*78 - 04*17*78 80/80 0 SRB (0)		143	IA137	4+26+76 - 0	5+03+76	40/56	43		(89)	2316	PUBL I SHED
SSÍ3F 8* 4*76 - 08*25*76 120/162 0 SRB (0) 1 SS27 3*13*78 - 04*17*78 80/80 0 SRB (0)		121	CA 13	0 - 9/*8 +9	7*01*76	160/193	54	140C(ALT)/747	(45)	2332	PUBLISHED
SS27 3*13*78 - 04*17*78 80/80 0 SRB (0)		196	SSİ3F	8* 4*76 - 0	8+25+76	120/162	0	SRB '	(o)		UNASSIGNED
		302	5527	3*13*78 - 0	4+17+78	80/80	0	SRB	(o)		UNASSIGNED

FACILITY	WIND	TUNNEL	N.	TEST NO.	TESTING SCHED.	ING COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(01)	ON.	DATAMAN STATUS
ARC 11-FT	T TRANSONIC		809	AA3A	1+10+71 -	01+31+71	300/300	0	PRE-ATP	6	2255	PUBL I SHED
ARC 11-F	ARC 11-FE TRANSONIC		686	IA7	2*12*73 -	02*23*73	80/160	82	PRE-ATP/001	(1)	2024	PUBLISHED
ARC 11-F	ARC 11-FT TRANSONIC		707	IA9A	4* 2*73 -	04*14*73	90/113	118	2A/089B	(11)	2032	PUBL I SHED
ARC 1.1-F	ARC 11-FT TRANSONIC		707	0A12A	4*12*73 -	04*23*73	90/103	86	2A/089B	(17)	2032	PUBLISHED
ARC 11-F	ARC 11-FT TRANSONIC		705	ISTA	8* 2*73 -	08*08*73	09 /09	21	2A/089B	(11)	2401	PUBL I SHED
ARC 11-F	ARC 11-FT TRANSONIC		716	IA 14A	9* d*73 -	09*13*73	130/151	149	4/140A.B	(47)	2084	PUBLISHED
ARC 11-F	11-FT TRANSONIC		716	0A22A	9*12*73 -	09*14*73	20/ 21	24	4/140A.B	(47)	2130	PUBLISHED
ARC 11-F	ARC 11-FT TRANSONIC		747	OA53A	11*19*73 -	11+27+73	128/128	267	4/140A.B	(47)	2128	PUBL I SHED
ARC 11-F	ARC 11-FT TRANSONIC		003	MA 17	4* 8*74 -	04*22*74	120/ 52	0.	GULFSTREAM 2	60		UNASSIGNED
WARC 11-F	TARC 11-FT TRANSONIC		705	DS8A	7*11*74 -	07*18*74	60/156	96	HRSI TILE	(81)	2179	PUBL I SHED
S ARC 11-F	T TRANSONIC		610	IA81A	7*26*74 -	08*27*74	84/184	66	4/140A.B (MDD)	(47)	2169	PUBL I SHED
ARC 11-F	ARC 11-FT TRANSONIC		014	IA19A	9*16*74 -	09*23*74	156/136	201	5/140c	(88)	2170	PUBLISHED
ARC 11-F1	ARC 11-FT TRANSONIC		023	IABO	11* 4*74 -	11*08*74	100/144	380	5/140C	(88)	2212	PUBLISHED
ARC 1.1-F1	ARC 1.1-FT TRANSONIC		. 60	0A161A	3*10*75 -	03*20*75	140/160	285	140A.B (MOD)	(45)	2245	PUBLISHED
ARC 11-F1	ARC 11-FT TRANSONIC		073	0A148	5* 5*75 -	05*17*75	220/264	474	4/140A.B (MOD)	(47)	2254	PUBLISHED
ARC 1.1-F1	ARC 11-FT TRANSONIC		072	IA72	5*19*75 -	05*31*75	120/200	176	5/140C	(88)	2258	PUBLISHEĎ
ARC 11-FT	11-FT TRANSONIC		113	IS2A	11* 7*75 -	11+14+75	144/120	23	5/140C	(84)	2284	PUBL I SHED
ARC 11-F1	ARC 11-FT TRANSONIC		144	IA135A	3* 2*76 -	03*23*76	120/146	132	4/140A,B (MOD)	(47)	2306	PUBL I SHED
ARC 11-F1	ARC 1:1-FT TRANSONIC		074	SATIFA	4*14*76 -	04*26*76	200/193	0	SRB	(483)	2331	PUBL I SHED
ARC 11-FT	11-FT TRANSONIC		187	0A 175	6*28*76 -	92*60*10	160/240	290	140A.B (ALT)	(47)	2333	PUBLISHED
ARC 11-FT	ARC 11-FT TRANSONIC		200	LA77	1* 9*76 -	07*24*76	120/151	521	140C/REMOTE ELE	(44)	2344	PUBLI SHED
ARC 1.1-FT	1.1-FT TRANSONIC		103	FA23C	7*24*76 - (08*04*76	60/ 44	0	TRIPLE BODY	6.		UNASSIGNED
ARC 11-FT	11-FT TRANSONIC		213	LA89	10* 4*76 -	10*18*76	160/208	220	0V101 (ALT)	(201)	2353	РИВС І ЅНЕВ
ARC 11-FT	11-FT TRANSONIC		115	0A149A	2*24*77 - (03*04*77	160/144	390	5/140¢	(47)	2376	PUBLISHED
ARC 1.1-FT	ARC 1.1-FT TRANSONIC		118	DA 145A	3* 8*77 - (04*02*77	160/480	981	VEH 102	(66)	2380	PUBL I SHED
ARC 11-FT	11-FT TRANSONIC		228	IA144	4* 6*77 - (04*15*77	160/200	514	5/1400	(72)	2377	PUBL I SHED

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		PUBL I SHED	PUBLISHED	TW DECEMBER	IN PROCESS	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBLISHED	Olio Tears	TOOL I SHED	PUBLISHED	PUBL I SHED				
	2404		2424	2458	2458	2463	2472	2476		2482	2378	2487	2487	2487	740.		
(00)	(60)	(96	(47)	(96)	(gs.)	(96)	(36)	(47)		(41)	(112)	(96)	(96)	(96)	(113)	(90)	(106)
5/1400		E/1400	HPC1 T11 E	IRST TILES	TPS TILES	140C STITS	TPS TILES	5/140C	5/1400	201	FUEL LINE	TPS TILE	TPS TILE	TPS TILE	TPS	TPS TILE	VEH 102
620	in C	S &		0	· c	124	0	166	200		0	0	0	0	0	. ɔ	0
170/285	84/ 56	240/131	60/ 64	8/ 16	8 /8	ო	8 /8	160/168	120/120		40/ 40	50/ 50	50/ 77	72 / 72	40/113	8 /8	80/144
10* 7*77 - 10*31*77	11*22*77 - 11*30*77	- 05*30*78	4*16*79 - 04*19*79	4*18*79 - 04*20*79	7* 2*79 - 07*05*79	8* 1*79 - 09*01*79	9* 3*79 - 09*03*79	2* 7*80 - 62*21*80	4*23*80 - 05*02*80	20.50	0.47.480 - 0.42/480	11*17*80 - 11*19*80	11*17*80 - 01*29*81	1*27*81 - 01*29*81	4*30*81 - 06*01*81	06*09*81	4*19*82 - 04*30*82
10* 7*77	11+22+77	5* 1*78 -	4*16*79	4*18*79	7* 2*79	8* 1*79	9* 3*79	2* 7*80	4*23*80	0,000	08-07-0	11*17*80	11*17*80 -	1*27*81	4*30*81 -	6* 9*81 - 06*09*81	4+19+82 -
IA119	0531	ĎA 126A	9830	0541	0542	DH400	0545	IA190A	04400	IA191		05518	DS51A	05510	0220	0980	MA33A
275	145	289	369	369	380		381	4	427	412	- 6	430	436	436	425	200	510
ARC 11FT TRANSONEC	ARC 11-FT TRANSONIC	ARC 11-FF TRANSONIC	ARC 11-FF TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 1-1-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	APC 11-ET TRANSCORES	THANSONIC	ARC 11-FI IRANSONIC	1 ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC #1-FT TRANSONIC
ARC 11	IRC 11-	RC. 11-	RC 11-	RC 11-	RC 11-	RC 11-	RC 1:1-	30 11-1 1-1-1	Ç 44-1	3C 11-F	C 11-F	14.		<u>-</u> ا ب	C 11-F	C 11-F	G 111-F
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	FACILITY	WIND	TUNNEL	NO.	TEST NO.	TESTING SCHED. C	G COMPL.	HOURS EST/CHG	RUNS	MODEL REF.	(ar)	NO.	DATAMAN STATUS
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		809	AA3B	2* 1*71 - 02	02*15*71	100/100	0	PRE-ATP	(o)	2255	PUBLISHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		919	IA2	10*11*72 - 11	11*03*72	40/244	95	PRE-ATP/001	(4)	2013	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		710	IA12B	4*23*73 - 05	05*07*73	120/156	63	2A/089B(MDD)	(14)	2048	PUBLISHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		707	IA98	5* 2*73 - 05	05*09*73	100/120	65	2A/089B	(11)	2032	PUBL I SHED
	ARC 9X7-FT SUPERSONEC	SUPERSONIC	_,	705	1518	7*23*73 - 08	08*01*73	60/ 64	4	2A/089B	(11)	2401	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		716	IA 14B	9*14*73 - 09	09*19*73	48/ 41	99	4/140A.B	(47)	2129	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		716	0A22B	9*19*73 - 09	09*20*73	40/ 31	30	4/140A.B	(44)	2131	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		747	0A53B	11*12*73 - 11	11*16*73	60/160	103	4/140A.B	(47)	2178	PUBLISHED
	ARC 9X7-FT	SUPERSONIC		052	IA110-2	7* 8*74 - 07	07*11*74	30/ 20	. 17	4/140A.B	(67)	2189	PUBL I SHED
A-	ARC 9X7-FT SUPERSONIC	SUPERSONIC		052	IA110-1	7* 8*74 - 07	07*11*74	50/ 60	79	4/140A.B	(49)	2189	PUBL I SHED
55	ARC 9X7-FT SUPERSONIC	SUPERSONIC		705	0588	7*19*74 - 07	07*29*74	60/120	33	HRSI TILE	(81)	2179	PUBLISHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		019	IA81B	8* 9*74 - 08	08*22*74	60/208	88	4/140A,B (MOD)	(47)	2194	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		044	IA82B	1*28*75 - 02	02*04*75	70/132	286	5/140C	(22)	2231	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		094	0A 16 1B	3*20*75 - 03	03*26*75	24/ 30	49	140A,B (MOD)	(45)	2245	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		113	1528	9*25*75 - 10	10*29*75	09 /09	67	5/140C	(84)	2284	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		166	0513	11*24*75 - 11	11*26*75	16/21	45	LRSI TILE	(82)	2287	IN PROCESS
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		103	FA23B	12* 1*75 - 12	12*12*75	60/ 72	0	TRIPLE BODY	6		UNASSIGNED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		144	IA135B	3* 5*76 - 03	03*23*76	60/100	20	4/140A,B (MDD)	(47)	2306	PUBLISHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		074	SA11FB	4*25*76 - 05	05*07*76	20/ 84	0	S48	(483)	233.1	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		1.14	SS13FB	7*26*76 - 08	08*04*76	60/120	0	SRB	(0)		UNASSIGNED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		119	0A221B	11* 8*76 - 21	21*15*76	9/ /09	184	ADS PROBES	(66)	2360	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		115	0A 149B	2* 2*77 - 02	02*07*77	40/168	201	5/140C	(47)	2370	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		113	0A145B	4*15*77 - 05	05*03*77	80/348	240	VEH 102	(66)	2364	PUBLISHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		272	IA 1568	12*16*77 - 01	01*06*78	100/191	177	VEH 102	(68)	2408	PUBLISHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		242	IA1058	1* 9*78 - 02	02*01*78	100/258	143	5/140C	(47)	2413	PUBL I SHED
	ARC 9X7-FT SUPERSONIC	SUPERSONIC		282	0A251B	4+17*78 - 04	- 04*23*78	40/80	06	ADS PROBES	(66)	2421	PUBL I SHED
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					,	Ş	7,4400	(47)	2424	PUBLISHED
ADC 9X7-FT SUPERSONIC	ERSONIC	289	OA 126B	4*17*78 - 04*30*78	-	720	27 1.400 888	6		UNASSIGNED
ARC 9X7-FT SUPERSONIC	ERSONIC	281	SS28FB	6*12*78 - 06*18*78	40/ 40	224	5/1400	(75)	2438	PUBL I SHED
ARC 9X7-FT SUPERSONIC	ERSONIC	246	IA138	8+21+78 - 09*01*/8		0.	ET FORETANK	(89)	2462	PUBL I SHED
ARC 9X7-FT SUPERSONIC	ERSONIC	283	1A131B	11* 3*/8 - 11+02-72		115	5/140C	(41)	2456	PUBLISHED
ARC 9X7-FT SUPERSONIC	ERSONIC	347	IA184	4* 4*13 0 11*79		•	HRSI TILE	(81)	2458	PUBLISHED
ARC 9X7-FT SUPERSONIC	ERSONIC	369	0537	5+ /+/5 C2	120/104	294	5/140C	(47)	2476	IN PROCESS
ARC 9X7-FT SUPERSONIC	PERSONIC	414	1A 1908	5*20*80 0 5		•	TILE	(81)	2465	PUBL I SHED
ARC 9X7-FT SUPERSONIC	PERSONIC	464	0555	2*23*81 - 03:02 - 03:05		•	TILE	(81)	2465	
ARC 9X7-FT SUPERSONIC	PERSONIC	208	0557	8-20-51 - 12+16+81	1 40/80	0	ADS PROBES	(66)		UNASSIGNED
ARC 9X7-FT SUPERSONIC	PERSONIC	513	MA358	=+10*87 - 05*21*82	2 40/96	•	VEH 102	(106)	2507	PUBL I SHEU
ARC 9X7-FT SUPERSONIC	PERSONIC	510	MA33B	20.01.46						

WIND.	TUNNEL	NO.	TEST NO.	TESTING SCHED.	IG COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(01)	NO.	DATAMAN STATUS
ARC 8X7-FT SUPERSONIC	ONIC	707	IA9C	4*22*73 - 09	05*01*73	09 /09	102	2A/089B	(11)	2032	PUBLISHED
ARC 8X7-FT SUPERSONIC	JNIC	707	0A12C	5* 2*73 - 05*10*73	5*10*73	09 /09	46	2A/089B	(71)	2032	PUBLISHED
ARC 8X7-FT SUPERSONIC	DNIC	710	1A12C	7*11*73 - 07	07*27*73	220/220	133	2A/089(MOD)	(14)	2065	PUBLISHED
ARC 8X7-FT SUPERSONIC	DNIC	705	1510	8* 9*73 - 08	08*11*73	12/ 24	 	2A/089B	(11)	2401	PUBLISHED
ARC BX7-FT SUPERSONIC	DNIE	705	083	8*11*73 - 06	- 08*14*73	58/ 52	31	2A/089B	(11)	2401	PUBL I SHED
ARC 8X7-FT SUPERSONIC	MIC	747	DA53C	11*28*73 - 12	12*06*73	60/159	159	4/140A.B	(47)	2185	PUBLISHED
ARC 8X7-FT SUPERSONIC	NIC	044	1A82C	11*11*74 - 11	11+15+74	80/92	240	5/140C	(75)	2219	PUBL I SHED
ARC 8X7-FT SUPERSONIC	JINIC	094	0A161C	3*26*75 - 03*31*75	3*31*75	20/ 22	45	140A,B (MDD)	(45)	2245	PUBLISHED
ARC 8X7-FT SUPERSONIC	NIC	144	IA135C	3*12*76 - 03*23*76	3*23*76	20/ 40	ĸ	4/140A,B (MDD)	(47)	2306	PUBL I SHED
ARC 8X7-FT SUPERSONIC	NIC.	074	SA11FC	3*29*76 - 04	04*14*76	120/156	0	SRB	(483)	2331	PUBLISHED
GARC 8X7-FT SUPERSONIC	MIC	114	SS13FC	7*19*76 - 07*23*76	7*23*76	09 /09	•	SRB	(O)	-	UNASSIGNED
ARC 8X7-FT SUPERSONIC	NIC	119	0A221C	11*15*76 - 11	11*22*76	89 /09	28	ADS PROBES	(66)	2360	PUBLISHED
ARC 8X7-FT SUPERSONIC	NIC	115	0A 149C	2*16*77 - 02	- 02*18*77	40/144	52	5/140C	(47)	2370	PUBL I SHED
ARC 8X7-FT SUPERSONIC	NIC		DA 145C	4* 6*77 - 04*20*77	4*20*77	80/100	188	VEH 102	(66)	2389	PUBL I SHED
ARC 8X7-FT SUPERSONIC	INIC	282	0A251C	5*29*78 - 06	06*15*78	40/ 72	96;	ADS PROBES	(66)	2421	PUBL I SHED
ARC 8X7-FT SUPERSONIC	MIC	281	SS28FC	11* 6*78 - 11	- 11*22*78	52/ 98	, O	SRB	(0)		UNASSIGNED
ARC 8X7-FT SUPERSONIC	NIC	318	0A146	11*28*78 - 12	12*07*78	80/116	30	5/140c	(47)	2445	PUBLISHED
ARC 8X7-FT SUPERSONIC	MIC	288	0A126C	12* 8*78 - 12	12*22*78	80/ 56	134	5/140c	(47)	2424	PUBL I SHED
ARC 8X7-FT SUPERSONIC	MIC	283	14.31C	3* 5*79 - 03	- 03*11*79	48/ 40	•	ET FORETANK	(89)	2462	PUBLISHED
ARC 8X7-FT SUPERSONIC	INIC	513	J. 35C	4*19*82 - 04*23*82	1*23*82	40/120	O .	ADS PROBES	(66)		UNASSIGNED
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	FACILITY	QNIA	TUNNEL	N	TEST NO.	TEST SCHED.	TESTING COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(QI)	DA NO	DATAMAN STATUS
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		147	044	10* 2*72 -	10+17+72	200/176	54	ATP	(9)	2007	PUBLISHED
	ARC 3.5-FT	3.5-FT HYPERSONIC		156	MA6	4* 2*73 -	- 04*06*73	120/136	4	RI PRR ORB.	(27)		UNASSIGNED
	ARC 3.5-FT	3.5-FT HYPERSONIC		157	DA11A	4* 9*73 -	- 04*17*73	144/176	62	2A/089B	(18)	2044	PUBLISHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		158	OH2	4*18*73 -	06+01+73	40/144	8	TPS TILES	(15)	2035	PUBLISHED
	ARC 3.5-FT	3.5-FT HYPERSONIC		160	0A 1 1B	5+14+73 -	05*25*73	140/160	70	2A/089B	(81)	2059	PUBLISHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		163	OAS8	6* 4*73 -	06*18*73	80/ 76	8 8	3/139B	(42)	2060	PUBL I SHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		167	0A73	7*11*73 -	7*18*73	96 /09	37	3/139B	(42)	2082	PUBL I SHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		168	DA23-1	7*19*73 -	07+31+73	80/54	23	3A/140A	(49)	2071	PUBL I SHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		168	0A23-2	7*26*73 -	07+31+73	80/ 90	33	3/139B	(32)	2071	PUBL I SHED
A-5	ARC	3.5-FT HYPERSONIC		169	1410	8* 1*73 -	08+03+73	50/ 40	2	3/139B	(32)	2078	PUBL I SHED
8	ARC 3.5-FT HYPERSONIC	HYPERSONIC		172	IH15	8+13+73 -	08+17+73	64/ 72	30	2A/089B	(41)	2098	PUBLISHED
	ARC 3.5-FT	3.5-FT HYPERSONIC		171	0H10	8*17*73 -	09*04*73	96/104	32	3/139	(26)	2085	PUBLISHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		171	1H2	9* 4*73 -	09*11*73	80/104	2	3/139	(56)	2085	PUBLISHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		173	OH15	9*12*73 -	09*20*73	64/ 96	35	FLAT PLATE	(23)	2385	PUBLISHED
	ARC 3.5-FT HYPERSONIC	HYPERSONİC		175	IA15	10*10*73 -	10+16+73	64/ 80	22	3/1398	(32)	2102	PUBLISHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		176	0A87	10*15*73 -	10*23*73	80/80	30	4/140A,B	(49)	2115	PUBL I SHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		177	0H44	10*24*73 -	10=30+73	80, 80	4	FLAT PLATE	(53)	2386	PUBL I SHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		178	IH3	10*31*73 -	11*09*73	128/128	79	3/139	(22)	2136	PUBLISHED
	ARC 3.5-FT HYPERSONIC	IVPERSONIC		180	1A16	11+17+73 -	12+04+73	80/ 52	თ	4/140A.B	(98)	2124	PUBL I SHED
	ARC 3.5-FT H	3.5-FT HYPERSONIC		180	0A26	11+17+73 -	12+04+73	64/140	27	4/140A,B	(96)	2124	PUBL I SHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		182	0H43	12* 2*73 -	12*21*73	160/128	92	TPS TILES	(15)	2250	PUBL I SHED
	ARC 3.5-FT H	3.5-FT HYPERSONIC		185	1H20	1+18+74 -	02+06+74	192/192	105	3/139	(22)	2148	PUBL I SHED
	ARC 3.5-FT HYPERSONIC	1YPERSONIC		183	9H0	2* 6*74 -	02+11+74	48/56	39	3/139	(22)	2151	PUBLISHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		186	AA 1A	2*12*74 =	02*25*74	64/ 64	28	4/140A.B	(49)		UNASSIGNED
	ARC 3.5-FT H	3.5-FT HYPERSONIC		187	DA36	2*25*74 -	03*01*74	80/ 80	38	4/140A.B	(49)	2162	PUBLISHED
	ARC 3.5-FT HYPERSONIC	HYPERSONIC		- 06 - 0	0A98	3*27*74 - 04*03*74	04*03*74	80/128	46	4/140A/B	(49)	2167	PUBL I SHED
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UNASSIGNED			PUBL I SHED	PUBŁ I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBLI SHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	UNASSIGNED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED
	2160	2177	2 1.80	2 180	2181	2171	2193	22 10	2248	2313	2317	2317		2357	24 18	2393	2452	2407	2412	2417	2423	2429	2448	2461	2468	2468	2467	2467	2480	2495
(49)	(52)	(96)	(50)	(20)	(466)	(19)	(22)	(15)	(60)	(°)	(83)	(82)	(26)	(09)	60	(83)	(86)	(20)	(09)	(66)	60	(58)	(88)	(89)	(09)	(09)	(09)	(56)	(09)	(09)
4/140A.B	3/139B	4/140A,B	2A/089B	2A/089B	EŢ	4/140B	4/140B	TPS TILES	5,140c	ET/SPIKE	5/1400	5/1400	5/140C	5/1400	GAS TEMP PROBE	FLAT PLATE	5/140C	5/1400	5/1400	ELEV/ELEV SEAL	ET/SPIKE	FLAT PLATE	FLAT PLATE	FLAT PLATE	5/140C	5/140C	5/1400	5/140C	5/140c	5/1400
13	76	34	15	24	Ó	91	26	9.	125	Ö	39	23	57	0	თ	62	0	0	73	28	0	0	0	o ,	0	0	0	0.	•	0
64/ 64	60/ 64	80/160	30/ 38	80/ 50	128/144	160/320	96 /08	80/196	240/256	40/ 40	40/ 40	40/ 80	192/218	400/628	16/ 32	80/118	80/ 79	160/160	160/116	120/168	80/80	09 /09	500/632	240/240	80/80	24/180	100/100	100/100	80/80	80/200
- 04*06*74	- 04+12+74	- 05*16*74	- 05*24*74	- 05*24*74	- 06*15*74	- 07+18+74	- 07+29+74	- 09*25*74	- 05*08*75	- 04*06*76	- 04*13*76	- 04*23*76	- 05+26+76	- 12+08+76	- 06*23*77	- 07*27*77	- 09*07*77	- 01*23*78	- 03*10*78	- 04*21*78	- 07*15*78	- 07+24+78	- 02*16*79	62*00*90 -	06*28*79	08*01*79	11*01*79	11+01+79	- 04+17+80	01*30*81
4* 4+74	4* 9*74	5 8 8 7 4	5+20+74	5*20*74	6* 3*74	6*21*74	7+22+74	9* 7*74	4+17+75	3*15*76 -	4* 7*76	4 14 14 76	4*26*76	10+12+76	6*20*77	7*14*77	8*28*77	12* 1*77	1*30*78	3*24*78	7* 1*78 -	7*15*78	12*26*78	5* 1*79 -	6*15*79 -	7*23*79 -	- 67*1 *01	10*15*79 -	2* 7*80 -	11*17*80 - 01*30*81
AA 1B	IA 18	0483	IH28-2	IH28-1	TA9F	0H38	DH26	1H27	IH48	FH14	OH53A	0H538	1H42	1H68	1H100	IH51A	1H99	IH73	06HI	0H58	FH16	IH518	IH51C	IH51D	0H84C	OH 105B	IH103-1	IH103-2	IH104	OH110
186	191	194	195	195	196	198	199	200	211	215	216	216	217	222	227	228	230	233	234	235	247	239	241	244	246	247	245	245	250	253
ARC 3.5-FT HYPERSONIC	ARC. 3,5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3: 5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3, 5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3, 5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	Y ARC 3.5-FT HYPERSONIC	6 ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3,5-FT HYPERSONEC	ARC 3.5-FT HYPERSONIC	ARC 2.5-FT HYPERSONIC	ARC 3.5-FT HYPERSCUIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC				

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TESTING
TUNNEL 1
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PHASE

DATAMAN (ID) NO. STATUS	
Š	226
(10)	(88)
MODEL.	
REF.	140C/7
RUNS	83
HOURS RUNS EST/CHG	156/156
TESTING SCHED. COMPL.	10* 6*75 - 11*07*75 156/156 83 140C/747
SCHED	10* 6*7
TEST NO.	LABO
NO.	666
TUNNEL	EED
· CINI M	T HIGH SPI
FACILITY	LARC 7X10-FT HIGH SPEED

				PHASE C/	C/D WIND TUNNEL TESTING PER FACILITY	PER FACILITY	≥ .		⋖	AUG 01,1984	984	
FACILITY	QNIA	TUNNEL	O	TEST NO.	TEȘTING SCHED. COMPL.	HOURS F	RUNS	MODEL REF.	(ID)	- DA	DATAMAN STATUS	
LARC V/STOL			1.14	0A 155	2*10*75 - 03*07*75	80/152	205	4/140A,B (MOD) (47)	(47)	2237	2237 IN PROCESS	
LARG V/STOL			129	CA8	8*18*75 - 09*12*75	200/324	536	4/140A.B/747	(43)	2290	PUBLISHED	

FACILITY	QNIA	TUNNEL	NO.	LEST NO.	TESTING SCHED.	ING COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(ar)	DA NO.	DATAMAN Status
LARC LOW TURBULANCE PRESSURE	BULANCE 1	PRESSURE	130	LA9A	4*26*73 - 05*07*73	05+07+73	160/ 96	65	089B, 139 NOSE	6	2056	PUBLISHED
LARC LOW TURBULANCE PRESSURE	BULANCE !	PRESSURE	135	LA9B.	5*23*73 - 05*31*73	05+31+73	140/ 32	22	089B, 139 NOSE	6	2056	PUBL I SHED
LARC LOW TURBULANCE PRESSURE	BULANCE F	RESSURE	138	DA 1.7 - 1	5*18*73 - 07*06*73	07+06+73	60/124	65	3/139B	(42)	2058	PURI 1SHED
LARC LOW TURBULANCE PRESSURE	BULANCE	RESSURE	138	0A 17-2	6*18*73 -	67+90+79	20/100	52	2A/089B	(18	2058	PUBLISHED
LARC LOW TURBULANCE PRESSURE	BULANCE F	RESSURE	141	LA23	7+31-73 -	- 08*03*73	48/ 32	<u>ត</u>	L/0-100 DRB.	6	2070	PUBLISHED
LARC LOW TURBULANCE PRESSURE	BULANCE P	RESSURE	148	LA9C	10*31*73 -	11+02+73	140/ 32	28	089B, 139 NDSE	··· 6	2056	PUBL I SHED
LARC LOW TURBULANCE PRESSURE	BULANCE P	RESSURE	202	LA21A	8+19+74 -	08+30+74	160/144	55	089B, 139 NOSE	6		UNASSIGNED
LARC LOW TURBULANCE PRESSURE	BULANCE P	RESSURE	506	LA21B	1+29+75 -	02+05+75	80/88	37	089B, 139 NDSE	6		UNASSIGNED
LARC LOW TURBULANCE PRESSURE	BULANCE P	RESSURE	214	LA36B	6* 3*75 -	06+05+75	75/ 27	4	140A.B	(32)	2292	PUBL 1 SHED
LARC LOW TURBULANCE PRESSURE	BULANCE P	RESSURE	2.19	LAGIA	8+25+75 - 09+10+75	09 * 10 * 75	40/ 40	138	140C/REMOTE ELE	(44)	2278	CANCEL
LARC LOW TURBULANCE PRESSURE	BULANCE P	RESSURE	227	LA73A	12*18*75 - 12+30*75	12+30+75	82/82	4	4/140A,B	(69)	2298	PUBLISHED
LARC LOW TURBULANCE PRESSURE	BULANCE P	RESSURE	228	LA61B	1* 5*76 - 01*14*76	01+14+76	40/ 96	81	140C/REMOTE ELE	(44)	2300	PUBLISHED
LARC LOW TURBULANCE PRESSURE	SULANCE PI	RESSURE	229	LA81:	1*14*76 - 01*23*76	01+23+76	40/120	54	ORB/TC (ALT)	6	2296	PUBI 7 SHED
LARC LOW TURBULANCE PRESSURE	SULANCE PI	RESSURE	238	LA73B	12*10*76 -	12*13*75	16/ 16	9	4/140A.B	(69)	2298	PUBLISHED
LARC LOW TURBULANCE PRESSURE	BULANCE PI	RESSURE	239	LA 100A	12*15*76 - 1	12+17+76	14/ 14	4	GENERIC	6		UNASSIGNED
LARC LOW TURBULANCE PRESSURE	SULANCE PI	RESSURE	240	LA98	1+28+77 - C	02+02+77	32/ 64	42	L.E. VORTEX	6		UNASSIGNED
LARC LOW TURBULANCE PRESSURE	ULANCE PE	RESSURE	241	LA 100B	2* 2*77 - 02*07*77	72*07*77	25/ 25	24	GENERIC	6		UNASSIGNED

	FACILITY	MIND	TUNNEL	NO.	TEST NO.	TES SCHED.	TESTING COMPL.	HOURS EST/CHG	RUNS	MOI REF.	MODEL	(10)	DA.	DATAMAN STATUS
	LARC 8-F1	LARC 8-FT TRANSONIC PRESSURE	RESSURE	626	LA1	11*19*72	- 12*19*72	60/84	73	ATP		(9)	2002	PUBL I SHED
	LARC 8-FT	TRANSONIC	PRESSURE	643	LAG	4+12+73	- 04+18+73	72/ 72	108	089B, 139 NOSE	JOSE	6	2040	PUBL I SHED
	LARC 8-FT	T TRANSONIC PRESSURE	RESSURE	6.48	LA17	5+ 4+73	- 05+14+73	80/ 96	102	L/0-100 DRB		6	2046	PUBĽ I SHED
	LARC 8-FT	T TRANSONIC PRESSURE	RESSURE	.653	LAZOA	6+22+73	- 07+06+73	160/160	8	0898, 139NDSE		(202)	2107	PUBL I SHED
	LARC 8-FT	8-FT TRANSONIC PRESSURE	RESSURE	658	LA20C	8+29+73	- 08+31+73	160/ 44	50	089B, 139NDSE		(202)	2107	PUBLISHED
	LARC. 8-FT	T TRANSONIC PRESSURE	RESSURE	199	0A25	9*14*73	- 09*2:*73	80/88	156	4/140A.B		(49)	2089	PUBLISHED
	LARC 8-FT	TRANSONIC	PRESSURE	662	SAZFB	9*24*73	- 09*28*73	60/ 52	60	SRB		(454)	2088	PUBLISHED
	LARC 8-FT	TRANSONIC PRESSURE	RESSURE	66 7	IA41	12+1:1+73	- 12+14+73	80/ 64	86	4/140A.B	J	(67)	2118	PUBLISHED
	LARC 8-FT	LARC 8-FT TRANSONIC PRESSURE	RESSURE	699	I.A38A	12*14*73	- 12+21+73	99 /99	59	140A.B	Ŭ	6	2121	CANCEL
A-	LARC 8-FT	TRANSONIC PRESSURE	RESSURE	899	DA 106	12*17*73	- 12*18*73	20/ 24	- 8	4/140A,B		(2)	2120	PUBL I SHED
64	LARC 8-FT	TRANSONIC PRESSURE	RESSURE	919	LA38B	3+27+74	- 03+29+74	48/48	37	140A.B	_		2239	PUBLISHED
	LARC 8-FT	TRANSONIC PRESSURE	RESSURE	2.29	LA44	4* 2*74 -	- 04+09+74	160/96	54	4/140A.B	_	. 6	2200	PUBL I SHED
	LARC 8-FT	LARC 8-FT TRANSONIC PRESSURE	ESSURE	680	LA48	4 * 10 * 74 -	- 04+15+74	48/ 48	66	0898-MOD NOSE	SE (6	2184	PUBL I SHED
	LARC 8-FT	LARC 8-FT TRANSONIC PRESSURE	ESSURE	684	LA51	5+24+74 -	- 05+31+74	80/ 72	140	140A.B	J	6	2183	PUBLISHED
	LARC 8-FT	8-FT TRANSONIC PRESSURE	ESSURE	989	DA 1 16	6*10+74 -	06+14+74	80/80	&	4/140A.B	_	49)	2186	PUBLISHED
	LARC 8-FF	LARC 8-FT TRANSONIC PRESSURE	ESSURE	289	DA 102	6 17 174 -	. 06*18+74	18/ 18	5	4/140A.B	_	36)	2229	PUBLISHED
	LARC 8-FF	8-FT TRANSONIC PRESSURE	ESSURE	692	LA208	8+21+74 -	08+26+74	160/ 54	20	089B, 139NOSE			2107	PUBLISHED
	LARC 8-FT	8-FT TRANSONIC PRESSURE	ESSURE	€69	1443	8*26*74 -	09+03+74	80/80	105	4/140A.B	_	72)	2204	PUBL I SHED
	LARC: 8-FT	LARC 8-FT TRANSONIC PRESSURE	ESSURE	669	LA56	11*11*74 -	11*22*74	160/176	147	VЕН. 5	_	6	2224 F	PUBLISHED
	LARC: 8-FT	TRANSONIC	PRESSURE	703	LA59	12+20+74 -	01+07+75	96 /96	146	4/140A.B	J	72)	2233 F	PUBLISHED
	LARC. 8-FT	LARC 8-FT TRANSONIC PRI	PRESSURE	714	LA69	4+24+75 -	04+29+75	64/ 64	86	5/140C	U .	72)	2257 P	PUBLISHED
	LARC, 8-FT	TRANSONIC	PRESSURE	717	LA62	5+14+75 -	05+23+75	40/ 80	301	14OC/REMOTE	ELE (44)	2264 P	PUBL I SHED
	LARC 8-FT	LARC 8-FT TRANSONIC PRESSURE		740	LA72	3*26*76 -	03+31+76	72/ 72	8	4/140A,B	· .	(69)	2309 P	PUBLISHED
	LARC 8-FT	LARC 8-FT TRANSONIC PRESSURE		749	IA93	5*10*76 -	05*14*76	96 /08	255	5/140C	_	72) 2	2326 P	PUBL I SHED
	LARC 8-FT	LARC 8-FT. TRANSONIC PRESSURE		758	LA91	9+ 3+76 -	09*15*76	80/104	214	140C/REMOTE	ELE (44) 2	2352 p	PUBLISHED
	LARC 8-FT	LARC 8-FT TRANSONIC PRESSURE		764	LA92	11*11*76 -	11+19+76	80/152	67	00101	. U .	(201) 2	2362 I	IN PROCESS
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LARC B-FT TRANSONIC PRESSURE 779 IA244 5+24+77 - 06+01 ¹ 77 80/ 76 154 5/140C (72) 239+ PUBLISHED LARC B-FT TRANSONIC PRESSURE 786 LA111 8+3+77 - 09+08+77 32/ 28 17 5/140C (72) 2397 PUBLISHED LARC B-FT TRANSONIC PRESSURE 803 LA115 2+177 - 09+08+77 32/ 28 17 5/140C (72) 2397 PUBLISHED LARC B-FT TRANSONIC PRESSURE 804 LA116 2+6+78 - 02+06+78 32/ 32 0 140C REDICTION (72) 2411 CANCEL LARC B-FT TRANSONIC PRESSURE 865 LA143 12+21+79 - 01+08+80 80/ 88 0 VEH 102 (106) 2411 CANCEL LARC B-FT TRANSONIC PRESSURE 865 LA143 12+21+79 - 01+08+80 80/ 88 0 VEH 102 (106) 2411 CANCEL LARC B-FT TRANSONIC PRESSURE 905 05538 3+23+81 - 04+01+81 80/ 108 0 TPS (717) 2503 PUBLISHED LARC B-FT TRANSONIC PRESSURE 909 05538 3+23+81 - 04+01+81 80/ 108 0 TPS (719) 2503 PUBLISHED	LARC 8-FT TRANSONIC PRESSURE	769	LA99	2*17*77	2*17*77 - 02*28*77	104/104	147	TAILCONE	(201)	2373	PUBL I SHED
786 LA111 8 3-77 - 08+05+77 95/ 40 95 140C SILTS (44) 2395 1 787 LA113 8 5+77 - 09+08+77 32/ 28 17 5/140C (72) 2397 1 803 LA115 2 1+78 - 02+06+78 45/ 45 175 140C/REMOTE ELE (44) 2409 1 804 LA116 2 6+78 - 02+06+78 32/ 32 0 140C 865 LA143 12+21+79 - 01+08+80 80/ 88 0 VEH 102 (106) 905 0553A 12+12+80 - 01+01+81 80/104 0 TPS (717) 2503 F	LARC 8-FT TRANSONIC PRESSURE	779	IA244	5+24+77	- 06*01*77	80/ 76	154	5/140C	(72)	2391	PUBL I SHED
787 LA113 8* 5*77 - 09*08*77 32/ 28 17 5/140C (72) 2397 1 803 LA115 2* 1*78 - 02*06*78 45/ 45/ 175 140C/REMOTE ELE (44) 2409 1 804 LA116 2* 6*78 - 02*06*78 32/ 32 0 140C 865 LA143 12*21*79 - 01*08*80 80/ 88 0 VEH 102 (106) 905 0553A 12*12*80 7 01*01*81 80/104 0 TPS (717) 2503 F	LARC 8-FT TRANSONIC PRESSURE	786	LA111	8+ 3+77	08*05*77	95/ 40	95	140C SILTS	(44)	2395	PUBLISHED
803 LA115 2* 1*78 - 02*06*78 45/ 45 175 140C/REMOTE ELE (44) 2409 1 804 LA116 2* 6*78 - 02*06*78 32/ 32 0 140C (201) 2411 (865 LA143 12*21*79 - 01*08*80 80/ 88 0 VEH 102 (106) 1 905 0S53A 12*12*80 - 01*01*81 80/104 0 TPS (717) 2503 F	LARC 8-FT TRANSONIC PRESSURE	787	LA113	8* 5*77	- 09*08*77	32/ 28	17	5/140C	(72)	2397	PUBLISHED
804 LA116 2* 6*78 - 02*06*78 32/ 32 0 140C (201) 2411 0 865 LA143 12*21*79 - 01*08*80 80/ 88 0 VEH 102 (106) 1 905 0S53A 12*12*80 - 01*01*81 80/104 0 TPS (717) 2503 F 909 0S53B 3*23*81 - 04*01*81 80/108 0 TPS (719) 2503 F	LARC 8-FT TRANSONIC PRESSURE	803	LA115	2+ 1+78	02*06*78	45/ 45	175	140C/REMOTE ELE	(44)	2409	PUBL I SHED
865 LA143 12*21*79 - 01*08*80 80/ 88 0 VEH 102 (106) 905 0553A 12*12*80 - 01*01*81 80/104 0 TPS (717) 2503 F 909 0553B 3*23*81 - 04*01*81 80/108 0 TPS (719) 2503 F	LARC 8-FT TRANSONIC PRESSURE	804	LA116	2+ 6+78 -	02*06*78	32/ 32	٥	1400	(201)	2411	CANCEL
905 0S53A 12*12*80 - 01*01*81 80/104 0 TPS (717) 2503 909 0S53B 3*23*81 - 04*01*81 80/108 0 TPS (719) 2503	LARC B-FT TRANSONIC PRESSURE	865	LA 143	12*21*79 -	01+08+80	80/88	0	VEH 102	(106)		UNASSIGNED
909 0S53B 3*23*81 - 04*01*81 80/108 0 TPS (719) 2503	LARC 8-FT TRINSONIC PRESSURE	905	OSESA	12*12*80 -	01*01*81	80/104	0	TPS	(717)	2503	PUBŁ I SHED
	LARC 8-FT TRANSONIC PRESSURE	606	05538	3*23*81 -	04+01+81	80/108	0	TPS	(719)	2503	PUBL I SHED

(4)

PHASE C/D WIND TUNNEL TESTING PER FACILITY

DATAMAN NO STATUS	UNASSIGNED	2363 PUBLISHED	2365 PUBLISHED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED
(10)	(01)	(22)	. 54)	(22)	(67)	(a.	(80)	(10¢)	(08)
MODEL REF.	PRE-ATP/001	4/1408	4/140B	4/140A.B	5/1400	SRB	5/140C FLUTTER	5/140C + TOWER	5/140C FLUTTER
RUNS	200	30	27	16	-	94	0	0	0
HOURS EST/CHG	416,400	120/120	120/104	80/58	120/120	150/150	200/120	200/216	200/128
TESTING SCHED. COMPL.	10*10*72 - 11*15*72	8+12+74 - 08+30+74	9+ 2+74 - 09+12+74	4* 7*75 - 04*10*75	10+22+75 - 10+30+75	3*22*76 - 04*02*76	5* 8*78 - 05*26*78	7*24*78 - 08*25*78	9*18*78 - 10*08*78
TEST NO.	FA1	0S7	950	0522	0250	SA32F	0521	1520	1510
O	210	246	246	258	266	275	300	306	308
WIND TUNNEL	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT TRANSONIC DYNAMIC	LARC 16-FT FRANSONIC DYNAMIC
LIY	16-FT								
FACILITY	LARC								

	FACILITY	MIND	TUNNEL	NO.	TEST NO.	TEST SCHED.	TESTING COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(ar)	DA NO.	DATAMAN STATUS
	LARC UNITARY PLAN	Y PLAN		1002	MAS	9*15*72 -	- 09*25*72	80/ 60	30	PRE-ATP/001	(01)	2001	PUBL I SHED
	LARC UNITARY PLAN	Y PLAN		995	LA4B	10+25+72 -	- 11+01*72	80/ 60	32	L/0-100 0RB.	(0)	2033	PUBLÌSHED
	LARC UNITARY	Y PLAN		1014	LA4A	11* 2*72 -	12*06*72	80/ 75	37	L/0-100 DRB.	(o)	2033	PUBL I SHED
	LARC UNITARY PLAN	Y PLAN		1001	0A7	11+27+72 -	. 12*08*72	100/100	110	ATP	(9)	2014	PUBLISHED
	LARC UNITARY PLAN	Y PLAN		995	LA4C	2+19+73 -	02+23+73	80/ 20	43	L/0-100 DRB.	(0)	2033	PUBL 1 SHED
	LARC UNITARY PLAN	Y PLAN		1023	LABA	4+18+73 -	. 04*24*73	50/ 45	28	0898, 139 NOSE	, (o	2054	PUBL I SHED
	LARC UNITARY PLAN	Y PLAN		1034	LA8B	5* 7*73 -	. 05*15*73	50/ 70	20	089B, 139 NOSE	60	2054	PUBL I SHED
	LARC UNITARY PLAN	Y PLAN		1031	MA7	5*14*73 -	05+18+73	50/ 50	81	2A/089B	(9)	2069	PUBLISHED
	LARC UNITARY PLAN	Y PLAN		1035	DA44-1	6* 1*73 -	. 06*08*73	40/ 54	47	2A/089B	(81)	2057	PUBLISHED
A -	LARC UNITARY PLAN	Y PLAN		1035	0A44-2	6+11+73 -	. 06+15+73	40/ 54	36	3/139B	(42)	2057	PUBLISHED
67	LARC UNITARY PLAN	Y PLAN		1039	LA8C ·	- £2*£. *2	07*06*73	50/ 30	4	089B, 139 NOSE	(O)	2054	PUBL I SHED
	LARC UNITARY PLAN	Y PLAN		1041	1H16	7* 6*73 -	07*13*73	35/80	12	24/0898	(41)	2166	PUBLISHED
	LARC UNITARY PLAN	Y PLAN		1040	LA8D	7+10+73 -	07*13*73	50/ 42	37	089B, 139 NDSE	60	2090	PUBL I SHED
	LARC UNITARY PLAN	F PLAN		1043	0.470	7*20*73 -	7*26*73	30/ 40	99	3/139B	(42)	2073	PUBL I SHED
	LARC UNITARY PLAN	PLAN		1049	LA 148	8* 6*73 -	08*16*73	100/ 90	47	089B, 139 NOSE	(202)	2106	PUBLISHED
	LARC UNITARY PLAN	PLAN		1046	LA 14A	8*17*73 -	08*28*73	100/80	50	089B, 139 NOSE	(202)	2106	PUBL I SHED
	LARC UNITARY PLAN	PLAN		1055	LA 14C	9* 5*73 =	09*10*73	100/40	45	089B, 139 NOSE	(202)	2106	PUBLISHED
	LARC UNITARY PLAN	PLAN		1057	DAZOA	9*10*73 -	09*13*73	50/ 40	53	4/140A.B	(49)	2083	PUBL I SHED
	LARC UNITARY PLAN	PLAN		1063	0464	10*30*73 -	10+31+73	50/ 30	28	4/140A.B	(96)	2108	PUBLISHED
	LARC UNITARY PLAN	PLAN		1063	1A35	11* 1*73 -	11*02*73	06 /09	22	4/140A.B	(98)	2108	PUBL I SHED
	LARC UNITARY PLAN	PLAN		1057	DA20C	11* 5*73 -	11+08+73	40/ 35	19	4/140A.B	(49)	2147	PUBLISHED
	LARC UNITARY PLAN	PLAN		1065	LA24A	11* 9*73 -	11*12*73	40/ 20	9	089B, 139 NOSE	(202)		UNASSIGNED
	LARC UNITARY PLAN	PLAN		1059	IH4	11*12*73 -	11*16*73	40/ 64	47	3/139	(26)	2138	PUBLISHED
-	LARC UNITARY PLAN	PLAN		1056	1 A42A	11*27*73 -	12*04*73	40/ 70	62	4/140A.B	(67)	2119	PUBLISHED
-	LARC UNITARY PLAN	PLAN		1071	IH1	12* 3*73 -	12*14*73	100/100	44	3/139	(22)	2153	PUBLISHED
	LARC UNITARY PLAN	PLAN		1058	LA 14D	12* 5*73 -	12*07*73	100/ 30	O	089B, 139 NDSE	(202)	2106	PUBL I SHED

LARC UNITARY PLAN	1073	1A42B	12+17+73 - 12+21+73	60/50	42	4/140A,B	(67)	2119	PUBLISHED
LARC UNITARY PLAN	1075	LA39A	12*26*73 - 12*28*73	50/ 24	6	140A.B	60	2188	PUBLISHED
LARC UNITARY PLAN	1065	! LA24B	1* 2*74 - 01*07*74	40/34	20	089B, 139 NOSE	(202)		UNASSIGNED
LARC UNITARY PLAN	1075	LA39B	2*11*74 - 02*15*74	20/ 20	36	140A.B	(0)	2188	PUBL I SHED
LARC UNITARY PLAN	1074	LA43A	3* 4*74 - 03*22*74	50/ 90	42	4/140A.B	(0)	2199	PUBLISHED
LARC UNITARY PLAN	1087	SA25F	3* 4*74 - 03*11*74	40/30	16	SRB	(454)	2150	PUBL I SHED
LARC UNITARY PLAN	1093	LA43B	3*18*74 - 03*27*74	o/ /os	28	4/140A.B	6.	2199	PUBLISHED
LARC UNITARY PLAN	1075	LA39C	4+ 1+74 - 04+08+74	50/80	56	140A.B	-6	2 188	PUBL I SHED
LARC UNITARY PLAN	1601	0A20B	4+ 8+74 - 04+12+74	50/ 43	30	4/140A.B	(49)	2163	PUBL I SHED
LARC UNITARY PLAN	1101	LA49A	4*24*74 - 04*26*74	20/30	37	0898-MOD NOSE	(0)	2182	PUBL I SHED
LARC UNITARY PLAN	1111	LA49B	7*15*74 - 07*17*74	20/ 25	105	089B-MOD NOSE	· (o)	2182	PUBLISHED
LARC UNITARY PLAN	1115	SH12F	7+29+74 - 08+07+74	80/80	42	SRB	(°)	2216	PUBLISHED
LARC UNITARY PLAN	1088	IA44A	8+12+74 - 08+16+74	40/50	27	4/140A.B	(72)	2206	PUBL I SHED
LARC UNITARY PLAN	1119	IA44B	8 * 19 * 74 - 08 * 23 * 74	40/80	47	4/140A.B	(72)	2206	PUBL I SHED
B LARC UNITARY PLAN	1092	LA46A	9+13+74 - 09+24+74	96 /96	61	140A.B DRB	60	2228	PUBLİSHED
LARC UNITARY PLAN	1117	LA46B	9*24*74 - 10*10*74	88 / 88	51	140A.B ORB	(0)	2228	PUBL I SHED
LARC UNITARY PLAN	1.118	LAG3A	7*18*75 - 07*18*75	40/ 14	63	140C/REMDTE ELE	(44)	2270	PUBLISHED
LARC UNITARY PLAN	11147	LA718	7*21*75 - 07*31*75	48/ 48	30	4/140A.B	(69)	2271	PUBL I SHED
LARC UNITARY PLAN	1151	LAG3B	9+12*75 - 09+17*75	40/ 38	19.	14OC/REMOTE ELE	(44)	2279	PUBL I SHED
LARE UNITARY PLAN	1132	LA71A	10+17+75 - 10+22+75	48/ 64	15	4/140A.B	(69)	2271	PUBL I SHED
LARC UNITARY PLAN	1159	SH13F	10*31*75 - 11*18*75	80/156	124	SRB	(0)	•	UNASSIGNED
LARC UNITARY PLAN	1173	LA75	4* 6*76 - 04*16*76	06 /06	283	14OC/REMOTE ELE	(44)	2318	PUBLISHED
LARG UNITARY PLAN	1152	I A 94A	4*18*76 - 04*23*76	40/ 60	95	5/140C	(72)	2323	PUBL I SHED
LARC UNITARY PLAN	1177	1A948	4*26*76 - 05*04*76	80/84	144	5/140C	(72)	2324	PUBLISHED
LARC UNITARY PLAN	1194	LA 101	-*18*77 - 05*24*77	55/ 55	200	14OC/REMOTE ELE	(44)	2390	PUBL I SHED
LARC UNITARY PLAN	1207	LA124	6. 7.77 - 06.10.77	40/ 40	19	5/140C	(74)	2426	PUBLISHED
LARC UNITARY PLAN	1212	LA110	8+ 8+77 - 08+10+77	30/30	9	140C SILTS	(44)	2396	PUBLISHED
LARG UNITARY PLAN	1217	LA114	8+23*77 - 08+31+77	30/ 60	70	140C SILTS	(44)	2399	PUBL I SHED
LARC UNITARY PLAN	1243	LA125	7* 3*78 - 07*05*78	16/ 48	41	VEH. 102	(105)	2432	PUBL I SHED
LARG UNITARY PLAN	1267	IA 180	3*26*79 - 03*30*79	48/53	37	ET FORETANK	(89)	2457	PUBLISHED
LARC UNITARY PLAN	1299	LA 131	1* 8*80 - 02*01*80	80/144	624	VEH 102	(106)	2478	PUBLISHED

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2498 PUBLISHED	2498 PUBLISHED	2498 PUBLISHED	2498 PUBLISHED	2336 PUBLISHED	2336 PUBLISHED	UNASSIGNED
(02)	(07)	(01)	(07)	(203)	(203)	(106)
0V102	0V 102	DV 102	DV 102	140c	140c	VEH 102
268	9	27	06	37	32	8
240/228	240/132	240/140	240/160	80/ 50	80/ 90	40/ 24
10*13*80 - 11*07*30	11* 8*80 - 11*21*80	11*24*80 - 12*15*80	1*12*81 - 02*02*81	9*11*81 - 09*17*81	9*28*81 - 10*08*81	11+ 2+81 - 11+04+81
0A255A	0A255B	0A255C	0A255D	LA145B	LA 145A	MA37
1311	1358	1315	1319	1345	1390	1394

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PHASE C/D WIND TUNNEL TESTING PER FACILITY

AUG 01.1984

FACILITY	*	- MIND	TUNNEL	NO.	TEST NO.	TESTING SCHED.	ING COMPL.	HGURS EST/CHG	RUNS	MODEL Ref.	(10)	NO.	DATAMAN D. STATUS
LARC	16-FT	LARC 16-FT TRANSONIC	-	149	LA36A	11+ 5+73 -	11+ 5+73 - 11+11+73	75/ 75	22	140A.B	(42)		UNASSIGNED
LARC	19-9t	LARC 16-ET TRANSONIC	•	243	SA9F	7* 8*74 -	7* 8*74 - 07*29*74	150/256	90	SRB/DROGUE	60		UNASSIGNED
LARC	16-FT	LARC 16-FT TRANSONIC		295	MA 19	8*16*74 -	8*16*74 - 09*12*74	120/144	36	GULFSTREAM 2	60)		UNASSIGNED
LARC	16-FT	LARC 16-FT TRANSONIC		312	0A224	2*23*76	2*23*76 03*24*76	80/304	25	VEH 102 (ADS)	(22)	2329	PUBLISHED
LARC	16-FT	LARC 16-FT TRANSONIC		325	0A270C	4* 8*78 -	4* 8*78 - 04*28*78	20/ 72	80	VEH 102	(104)	2419	PUBLISHED
LARC	16-FT	LARC 16-FT TRANSONIC		325	0A270B	5* 1*78 -	5* 1*78 - 05*12*78	40/80	357	VEH. 102	(105)	2419	PUBL I SHED
LARC	16-FT	LARC 16-FT TRANSONIC		325	0A270A	5*15*78 -	5*15*78 - 06*09*78	60/160	156	VEH 102	(68)	2430	PUBL I SHED
LARC	16-FT	LARC 16-FT TRANSONIC		341	LA132	10*11*79	10*11*79 - 11*01*79	40/ 80	18	VEH 102	(68)	2471	PUBLISHED
LARC	16-FT	LARC 16-FT TRANSONIC		342	LA140	12*26*79 -	12*26*79 - 01*03*80	80/80	11	VEH. 102	(105)	2475	PUBL I SHED
V LARC	16-FT	B LARC 16-FT TRANSONIC		352	0A256	2+ 2*81 -	2* 2*81 - 02*09*81	80/ 32	٥	00 102	(70)		UNASSIGNED

DATAMAN ND. STATUS	2043 PUBLISHED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED	2049 PUBLISHED	2075 PUBLISHED	2076 PUBLISHED	2101 PUBLISHED	2101 PUBLISHED	2096 PUBLISHED	2101 PUBLISHED	2105 PUBLISHED	2117 PUBLISHED	2350 PUBLISHED
(10)	6	(38)	2 (2	4	3)	(4	(31)	(33)	(38)	(46)	(46)	(41)	(46)	(41)	(20)	(06)
MODEL.	HRSI JILE	 PRE-ATP/001	PRE-ATP/001	PRE-ATP/001	PRE-ATP/001	PRE-ATP/001	2A/089B	2A/089B	2A/089B	3/139,139A	3/139, 139A	2A/089B	3/139A, W/CAN	2A/089B	34/1398	4/1408
RHINS	72	120	120	120	130	35	52	78	, 20	50	64	18	56	29	29	8
HOURS EST/CHG	60/ 64	10/100	10/100	10/100	10/ 10	40/ 24	36/ 40	40/ 64	40/ 24	20/ 20	40/ 48	8 /8	20/ 16	40/ 48	16/ 16	40/ 72
TESTING SCHED. COMPL.	6+2' +72 - 08+23+72	9+19+72 - 09+26+72	9*19*72 - 09+26*72	9*19*72 - 09*26*72	9*19*72 - 09*26*72	11* 6*72 - 11*08*72	1*30*73 - 09*05*73	3*15*73 - 03*28*73	5* 8*73 - 05*10*73	5*14*73 - 05*16*73	5*25*73 · 06*01*73	6*13*73 - 06*13*73	6*14*73 - 06*15*73	10* 9*73 - 10*16*73	10*17*73 - 10*18*73	11*12*73 - 12*07*73
TEST NO.	LA 16	OH1A-4	0H1A-3	OH:1A-2	0H1A-1	0H1B	0H40	OH4 1A	OH4 1B	0H42A	0H42B	OH13	0H42C	IH17	0H14	0H46
NO.	624	3234	3234	3234	3234	3283	3619	3778	4060	4080	4080	644	4080	646	648	4556
FACILITY WIND TUNNEL	LARC MACH 8 VARIABLE DENSITY	LARC MACH & VARIABLE DENSITY	LARC MACH 8 VARTABLE DENSITY	ARC MACH 8 VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY	PLARG MACH 8 VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY	LARC MACH B VARIABLE DENSITY	LARC MACH & VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY

7EST NO. 'NO.
096 LA11 7+11+73
097 LA32A 7*25*73
LA31
099 LA13A 8+17+73
0A85
102 LA35 11+12+73
099 LA13C 11+14+73
103 LA33 11*19*73
LA47A
105 LA34 1+17+74
1460
04 406
_
LA41B
0H51-3
_
CA4/C 7+ 8+74
LAS/A 10* 2*74

LARC 31-IN CONT-FLOW HYP.	118	MA22	5+ 6+75 -	06*03*75	75 100/168 3	357	4/140A.B	(32)	2267	PUBLISHED
LARC 31-IN CONT-FLOW HYP.	114	LA578	6* 4*75 -	6*06*75	84/ 24	. ō	140A.B	6	2454	PUBLISHED
LARC 31-IN CONT-FLOW HYP.	130	LA93	3*16*77 -	3*16*77 - 04*21*77	80/ 56	34	80/ 56 34 NOSE CONE	6	2383	(0) 2383 IN PROCESS

DATAMAN (ID) NO. STATUS	(13) 2311 PUBLISHED	(13) 2311 PUBLISHED
MODEL		
REF.	8680	8680
RUNS	4	4
HOURS EST/CHG	36/36	16/ 16
TESTING COMPL.	8*26*75 - 08*29*75	1+15+76 - 01+28+76 16/ 16
TES SCHED.	8.26.75	1+15+76
TEST NO.	LA87	267 LA78
NO.	446	267
TUNNEL		
WIND	PERSONIC	PERSONIC
FACILITY	LARC 4-FT HYPERSONIC	LARC 4-FF HYPERSONIC

PHASE C/D WIND TUNNEL TESTING PER FACILITY

WIND FACILITY		TUNNEL	NO.	TEST NO. 1	TESTING SCHED. COMPL.	HDURS EST/CHG	RUNS	MODEL Ref.	(OI)	Ö.	DATAMAN STATUS
LARC 20-IN HYPERSONIC (M-6)	SONIC ((M=6)	6441	LA 15.	8+ 3+73 - 09+24+73	120/240	69	089B, 139 NDSE	6	2079	2079 PUBITSHED
LARC 20-IN HYPERSONIC (M=6.)	SONIC ((M=6.)	6456	LA54	8+14+74 - 08+19+74	28/ 28	ß	140C 0RB.			IN PROCESS
LARC 20-IN HYPERSONIC (M=6.)	SONIC ((M=€.)	6458	LA52	8+26+74 - 08+30+74	72/ 40	38	140A,B	6		
LARC 20-IN HYPERSONIC (M=6.)	SONIC ((M=6,)	6468	LA88	5+21+75 - 05+21+75	16/ 16	ý	089B	(13)	2311	
LARC 20-IN HYPERSONIC (M-6)	SONIC (M-6)	6502	LA1112	2* 3*77 - 02*05*77	24/ 24	0	5/1400	6		UNASSIGNED
LARC 20-IN HYPERSONIC (M=6)	SDNIC. ((M=6.)	6546	LA 14 1A	1+12+80 - 02+01+80	80/148	0	VEH 102	(74)	2477	PUBLISHED
LARC 20-IN HYPERSONIC (M=6)	SONIC. (M=6.).	6546	LA 14 1B	3+18+80 - 05+01+80	80/200	Ò	VEH 102	(74)	2477	
LARC 20-IN HYPERSONIC (M=6)	SONIC (W=6.)	6550	LA 14 1C	6+22+80 - 07+01+80	80/ 10	0	VEH 102	(72)		
LARC 20-IN HYPERSONIC (M=6)	SONIC (M=6).	6229	0A257	3+12+81 - 04+20+81	80/324	380	^ј ен 102	(72)	2466	PUBLISHED

- 1977年1月1日は新聞ののの一歩日、前面開製開開開開開の製造の車・サントン・ファンター としましまます まましまます しょうしょし

				PHASE C	/D WIND TUNN	HASE C/D WIND TUNNEL TESTING PER FACILITY	ER FACILI	<u> </u>			AUG 01, 1984	1984
FACILITY	QN I	TUNNEL	, O	TEST	TES SCHED.	TESTING	HOURS R	RUNS	MODEL REF.	EL (10)	NO V	DATAMAN STATUS
LARC HYPERSONIC NITROGEN	NIC NETR	DGEN	28	IH19A	12 • 14 • 73	12+14+73 = 12+26+73	40/ 40 7 22		2A/089B	(20)	2157	PUBLISHED
LARC. HYPERSONIC NITROGEN	NIC NITE	OGEN	28	IH19B	12-27-73	12+27+73 - 01+08+74	20/ 40	22	2A/089B	(05)	2157	PUBL 1 SHED
LARC HYPERSONIC NITROSEN	NIC NITE	DGFN	90	0489	7*15*74	7*15*74 - 08*05*74		32	60/143 32 5/140C	(74)		2214 PUBLISHED

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FACILITY	TUNNEL	Q	TEST NO.	TESTING SCHED. COMPL.	HOURS F	RUNS	MODEL Ref.	(ID)	NO DA	DATAMAN NO. STATUS
LARC 20-IN FREDN		118	1H18	10*19*73 - 10*30*73	3 40/ 40	22	2A/089B	(41)	2110	2110 PURITCHER
LARC 20-IN FREDN		121	0H45	11* 2*73 - 11*09*73	3 40/ 46	22	3A/139B	(50)	2109	PUBLISHED
LARC 20-IN FREON		220	LASSA	8*12*74 - 08*14*74	4 80/ 32	m	5/140C	· · · · · · · · · · · · · · · · · · ·	2213	
LARC 20-IN FREDN		330	LA95.	6+ 6+77 - 10+19+77	7 160/160	4	NOSE CONE	6		UNASSIGNED
LARC 20-IN FREDN		390	LA 142	2* 1*80 - 03*01*80	0 80/ 80	0	VEH 102	(74)	-	UNASSIGNED
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				i	• •	HOURS	RUNS	MODEL		DAT	DATAMAN
QNIM	TUNNEL	NO.	NO.	SCHED.	COMPL.	"		REF.	(11)	į	•
			Ċ	6*19*72 - 06*30*72	*30*72	160/152	31	JSC 049	6 ⁻ .	2034	PUBL.I SHED
LARC 22-IN HELIUM		4 0	LAZZ	01.00 - 01.00 C	*06*72	40, 80	31	ATP	÷	2003	PUBL I SHED
LARC 22-IN HELIUM		409	MA2	9*18*72	27.70	120/136	24	L/0-100 DRB.	(0)	2023	PUBL I SHED
LARC 22-IN HELIUM		4	LA2	10* 6*12 - 12 01:12	1.70.12	40/176	42	3A/139B	(34)	2092	PUBL I SHED
LARC 22-IN HELIUM		<u> </u>	0472	9+ 4+73 - 09+17+73	9+17+73	40/ 80	15	089B, 139 NOSE	60		UNASSIGNED
LARC 22-IN HELTUM		8 4	1 A 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9+18+73 - 01+17+74	1+17+74	272/272	56	089B, 139 NOSE	(o)		UNASSIGNED
LARC 22-IN HELIUM		4 t	LA 120	12+11+73 - 12+28+73	2+28+73	09 /09	191	4/140A.B	(34)	2125	PUBLISHED
LARC 22-IN HELIUM		22.4	0.00	5+13+74 - 06+07+74	5+07+74	40/ 40	25	139B	(o)	2176	PUBL I SHED
LARC 22-IN HELIUM		1420	DA 169	8+26+74 - 08+29+74	8+29+74	60/88	32	5/140C	(74)	2205	PUBL I SHED
LARC 22 IN HELIUM			1 468	2*26*75 - 03*20*75	3+20+75	120/120	56	140C ORB	6	2256	IN PROCESS
LARC 22-IN HEL TUM		4 6 5 6	1 485	4+ 7+76 - 05+24+76	5+24+76	88 /88	64	1400	(13)	2343	PUBL I SHED
i Ci) <u>(</u>	1 A538	1+12+77 - 01+18+77	1+18+77	80/ 72	5	5/1400	(o)	2213	IN PROCESS
LARC 22 IN HELIUM		463	LA 102	12+ 7+78 - 01+04+79	11.04.79	40/12(29	STING EFFECT	6 ·		UNASSI GNED
LAKE ZZ IN IN LILE			•								

				PHASE C,	PHASE C/D WIND TUNNEL TESTING PER FACILITY	STING P	ER FACILI	~			₹	AUG 01, 1984	984
FACILITY	QNI A	TUNNEL	2	TEST NO.	TESTING SCHED. COMPL.	OMPL.	HOURS RUNS EST/CHG	RUNS	REF.	MODEL	(10)	DATAM NO.	DATAMAN STATUS
LARC 26-IN TRANSONIC BLOWDOWN	TRANSONIC	BLOVDOWN	440	082	6* 4*73 - 06*07*73	07*73	120/ 24	8	ATP		(24)	2067	PUBLI SHED
LARC 26-IN TRANSONIC BLOWDOWN	TRANSONIC	BLOWDOWN	545	0S1	8+ 6+73 - 08+10+73	10+73	80/ 72	-66	2A/089B		(23)	2094	PUBL. I SHED
LARC 26-IN TRANSONIC BLOWDOWN	TRANSONIC	BLOWDOWN	547	154	10+18+73 - 10+24+73	24+73	120/ 58	94	2A/089B		(06)	2146	PUBLISHED
-													

DATAMAN STATUS	UNASSIGNED
2 2	
(10)	(15)
MODEL	ĒS
REF.	TPS TII
RUNS	200
HOURS EST/CHG	1 160/ 80 200 TPS TILES
STING COMPL.	01+01+73
TESTING SCHED.	11+15+72 - 01+01+73
TEST NO.	FH4
Š	901
TUNNEL	
AIND	E'S NUMB
FACLLITY	! LARC HIGH RE'S NUMBER HELIUM

AUG 01, 1984	(1D) DATAMAN STATUS	4) 2088 PUBLISHED
	Ü	(454)
	MODEL	
	REF.	SR B
<u>}</u>	RUNS	176
PER FACILI	HDURS EST/CHG	60/176 176
PHASE C/D WIND TUNNEL TESTING PER FACILITY	TESTING SCHED. COMPL.	7+24+73 - 08+07+73
PHASE C,	TES#	SAZFA
	Q	ស្- ល
	TUNNEL	HIGH-TEMP STRUCTURE
	WIND.	HIGH-

PHASE C/D WIND TUNNEL TESTING PER FACILITY

3 8 - × × × × × × × × × × × × × × × × × ×	MIND	TUNNEL	Ş	TEST	TESTING SCHED. CO	TESTING COMPt.	HOURS RUNS	RUNS	REF.	MODEL	(ID)	NO.	DATAMAN NO. STATUS
		•		į								· #*•	-
T. VA	LARC 60-FT. VACUUM SPHERE	HERE	3289	0499	3+26+74 - 4+12+74	4 + 12 + 7 4	50/ 52 14 3/1398	14	3/1398		(21)	2172	(21) 2172 PUBLISHED

TUNNEL
035 SA6F
038 IH34
041 IH39
042 0A234
044 IH83
045 IH11

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AUG	(01)	(25)
	MODEL	
	REF.	2A/089B
≻	RUNS	200
ER FACILIT	HOURS RUNS EST/CHG	200/450
PHASE C/D WIND TUNNEL TESTING PER FACILITY	TESTING SCHED. COMPL.	4*14*75 - 06*20*75 200/450 200 2A/089B
PHASE C/D	TEST NO.	OH64
	NO	0H64 0H64
	WIND: TUNNEL	ILIFY
	WIND	ERC SPACE POWER FACILITY
	FACILITY	LERC SPACE

FACILITY	TAND	TUNNEL	NO.	TEST NO.	TESTING SCHED.	ING COMPL.	HOURS EST/CHG	RUNS	MODE:	(10)	NO.	DATAMAN STATUS
MSFC 14-IN TRANSONIC	NSONIC		555	0A1	9*27*72 -	10+07+72	96 /09	206	ATP	÷ ;	2005	PUBLISHED
MSFC 14-IN TRANSONIC	NSONIC		556	IA1A	10+10+72 -	10+19+72	56/84	179	ATP		2006	PUBL I SHED
MSFC 14-EN TRANSONIC	NSONIC		545	IA18	10+19+72 -	11+28+72	150/257	361	ATP	÷	2010	PUBL I SHED
MSFC 14-IN TRANSONIC	NSONIC		558	MA9F	11+29+72 -	12+07+72	74/ 75	132	ATP		2011	PUBL I SHED
MSFC 14-IN TRANSONIC	NSONIC		554	SA1F	12* 9*72 -	12+23+72	160/144	700	PRR/SRB	÷	2012	PUBLISHED
MSFC 14-IN TRANSONIC	NSONIC		565	SA3F	2*20*73 -	03*20*73	160/164	261	SRB	(448)	2025	PUBL I SHED
MSFC 14-IN TRANSONIC	NSONIC		559	1568	3*20*73 -	05+27+73	50/ 50	70	2A/089B	(23)	2158	PUBL I SHED
MSFC 14-IN TRANSONIC	NSONIC		568	0A47	3+28+73 -	04*05*73	116/116	245	2A/089B	(13)	2029	PUBLISHED
MSFC 14-IN TRANSONIC	NSONIC		266	IA31FA	4* 9*73 -	04*13*73	09 /09	104	2A/089B	(13)	2026	PUBL I SHED
WSFC 14-IN TRANSONIC	NSDNIC		570	IA31FB	4*13*73 -	04*30*73	50/271	220	2A/089B	(13)	2028	PUBL I SHED
GMSFC 14-IN TRA	NSONIC		571	IAG	4*30*73 -	05+03+73	45/52	94	2A/089B	(13)	2039	PUBL I SHED
MSFC 14-IN TRANSONIC	NSONIC		572	SASF	5* 3*73 -	05*08*73	45/52	101	SRB	(448)	2051	PUBLISHED
MSFC 14-IN TRANSONIC	NSONIC		267	IA32F	5* 9*73 -	05+24+73	100/180	190	2A/089B	(13)	2027	PUBL I SHED
MSFC 14-IN TRANSONIC	SONIC		574	0A48	5*25*73 -	6+11+73	100/166	364	3/139B.W/CANS	(34)	2055	PUBLISHED
MSFC 14-IN TRANSONIC	VSONIC		573	IA31FC	6+21+73 - (07*09*73	32/ 51	145	2A/089B	(13)	2072	PUBLISHED
MSFC 14-IN TRANSONIC	VSDNIC		579	IA37A	7+10+73 - (07*13*73	96 /09	64	3A/139B	(34)	2063	PUBLI SHED
MSFG 14-IN TRANSONIC	VSONIC		580	1A48	7*18*73 - (07+21+73	20/ 24	4,	3A/139B	(34)	2063	PUELISHED
MSFC 14-IN TRANSONIC	SONIC		575	MA 10F	7*23*73 - (09*12*73	160/305	0	DGIVE CYL	-6°	-	UNASSIGNED
MSFC 14-IN TRANSONIC	SONIC		578	SA 10F	9*13*73 -	10+01+73	112/128	200	SRB	(449)	2087	PUBL I SHED
MSFC 14-IN TRANSONIC	SONIC		582	IS6A	10* 2*73 -	10+11+73	80/ 74	126	20/0898	(13)	2158	PUBLISHED
MSFC 14-IN TRANSONIC	SONIC		584	1A52	10+11+73 -	10+17+73	16/ 28	27	3A/139B	(34)	2042	PUBLISHED
MSFC 14-IN TRANSONIC	SONIC		585	IA37B	10*15*73 -	10*16*73	16/ 22	45	3A/139B	(34)	2093	PUBL I SHED
MSFG 14-IN TRANSONIC	SONIC		581	0A49	10*18*73 -	11*09*73	198/170	415	4/140A.B	(34)	2095	PUBLISHED
MSFC 14-IN TRANSONIC	SONIC		289	1A62F	11*15*73 -	11*19*73	16/ 19	33.	4/140A.B	(34)	2103	PUBL I SHED
MSFC 14-IN TRANSONIC	SONIC		290	SAZGFA	11*19*73 - 1	12*11*73	63/63	50	SRB	(449)	2111	PUBLISHED
MSFC 14-IN TRANSONIC	SONIC		588	IA53	12*20*73 - 0	01*04*74	40/ 36	45	2A/089B	(13)	2123	PUBL I SHED
				-							-	

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E CYI. (O) UNASSIGNED	N-3C (459) 2142 PUBLISHED	(449) 2111 PUBLISHED	(459) 2145 PUBLISHED	CONE-CYLINDER (O) UNASSIGNED	CONE-DGIVE-CYL (O) IMASSIGNED	(460) 2165 PUBLISHED		XC (74) 21/4 PUBLISHED	(74) 21/4	(74) 2174 (74) 2190 1 (74) 2232 1	(74) 21/4 (74) 2190 (74) 2232 (470) 2208	(74) 21/4 (74) 2190 (74) 2232 (470) 2208 (471) 2223	(74) 21/4 (74) 2190 (74) 2232 (470) 2208 (471) 2223	(74) 2174 (74) 2190 (74) 2232 (470) 2208 (77) 2223 (77) 2227	(74) 21/4 (74) 2190 (74) 2232 (47) 2223 (74) 2227 (77) 2227 (77) 2227	(74) 21/4 (74) 2190 (74) 2232 (470) 2208 (77) 2227 (77) 2227 (77) 2227	(74) 21/4 (74) 2190 (74) 2232 (471) 2223 (74) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227	(74) 21/4 (74) 2190 (74) 2232 (471) 2223 (74) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227	(74) 21/4 (74) 2190 (74) 2232 (471) 2223 (77) 2227 (77) (0)	(74) 21/4 (74) 2190 (74) 2232 (471) 2223 (77) 2227 (78) 2274	(74) 21/4 (74) 2190 (74) 2232 (470) 2203 (77) 2227 (74) 2227 (74) 2274	(74) 21/4 (74) 2190 (74) 2232 (471) 2223 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (74) 2227 (74) 2227 (77) 2227 (74) 2227 (74) 2227 (74) 2227 (74) 2227 (74) 2227 (74) 2227 (74) 2227 (74) 2227 (74) 2227 (74) 2227	(74) 21/4 (74) 2190 (74) 2232 (471) 2223 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (74) 2274 (0) (0) (469) 2244 (469) 2244	(74) 21/4 (74) 2190 (74) 2232 (471) 2223 (77) 2227 (77) 2227 (77) 2227 (70) (0) (0) (469) 2244 (468) 2244 (0) (0) (10) (17) 2235 (17) 2235 (17) 2235 (17) 2235	(74) 2174 (74) 2190 (74) 2232 (470) 2208 (471) 2223 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (70) (0) (0) (0) (0) (0) (1469) 2244 (169) 2244 (177) 2253	(74) 2174 (74) 2190 (74) 2232 (470) 2208 (471) 2227 (77) 2227 (77) 2227 (77) 2227 (70) (70) (0) (0) (469) 2244 (0) (0) (0) (71) 2253 (745) (77) 2253 (768) 2244 (0) (0)	(74) 21/4 (74) 2190 (74) 2232 (470) 2208 (471) 2223 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (70) (0) (0) (469) 2244 (468) 2244 (0) (0) (71) 2253 (72) 2253 (73) 2253 (74) 2253 (76) (77) 2253 (78) (79) 2253	(74) 21/4 (74) 21/4 (74) 2190 (74) 2232 (471) 2223 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2253 (468) 2244 (0) (0) CALIB. (0)	(74) 2174 (74) 2190 (74) 2232 (470) 2208 (471) 2223 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (77) 2227 (70) (71) 2253 (71) 2253 (71) 2253 (71) 2253 (71) 2253 (71) 2253 (71) 2253 (71) 2253 (71) 2253 (71) 2253 (71) 2253 (71) 2253
O DGIVE CYI.	O TITAN-3C	O SRB	6. ET	O CONE	O CONE-	O ET	5/1400	5 5/140C	9 5/1400	, ET 0	SRB	9 5/1400	5/1400	1 5/1400	5 1400	0 5/1400	SRB	SRB	5 SRB	SRB	SRB.	SRB		7 5/1400	SRB			CONE	1
		13 50					264 270	80 186	96 109	80 0	250 0	17 29	40 40	16 41	64 90		104 0	44 0	72 185	50 160	102 200	0 06	30 50	93 137	192 0	26 0	24 0	0 00	9
4 80/102			4 56/64	4 24/24	4 160/176	4 100/104	4 256/264	4 .30, 80	96 /08 #	4 64/80	160/250	1 20/ 17	4 20/ 40	5 16/16	5 40/64	5 .60/142	5 104/104	5 40/ 44	5 80/ 72	5 40/ 50	5 80/102	6 40/ 90	5 40/30	93	180/192	12/ 56	3 24/ 24	160/200	
01*18*74	04+15+74	01+30+74	03+05+74	03 10 14	4+08+74	09+23+74	07*21*74	07*09*74	09+26+74	10+11+74	12+10+74	12*17*74	12 * 17 * 74	01*09+75	01*09*75	07*06*75	02+13+75	02+21+75	03+13+75	04+11+75	04+11+75	04+12+75	05+22+75	05+22+75	06+27+75	07*17*75	07+22+75	09*11*75	1.00
1* 3*74 -	1*18*74	1+28+74	2*19*74	3* 6*74 -	3+11+74 -	4*29*74 -	5+ 9+74 -	6+24+74 -	9+11+74 -	9+27+74 -	10+18+74 -	12*11*74 -	12+11+74 -	12*19*74 -	12+19+7.4 -	1+ 9+75 -	1+27+75 -	2+15+75 -	3* 3*75 -	3+17+75 -	3+17+75 -	4+12+75 -	4+25+75 -	4*25*75 -	5+27+75 -	7* 9*75 -	7 • 18 • 75 -	8* 7*75 -	0.00
MA 1 1F FA 10	FA4	SA26FB	TA1F	FA12	FA11	TA2F	1433	0A 108	0A i31	TA3F	SABF	1A71A-2	IA71A-1	1A74B-2	1A71B-1	FA14	5S 14F	SSZÓF	SA30F	SA28F-2	SA28F-1	SS15F	IA125-2	IA125-1	5S 19F	FA22A	FA20A	FA13	
586 59+	587	595	583	597	293	296	594	599	607	609	604	610	610	610	610	009	616	614	611	603	603	623	622	622	· 626	628	631	612	. 909
MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC. 14-IN TRANSONIC	O MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	CINCOLLEGY MILES CONT.

MSFC 14-IN TRANSONIC	633	FA21A	10+23+75	10+23+75 - 10+31+75	24/ 44	0	NOZZI F CALTB	ā		CHASSIC
MSEC 14-IN TRANSONIC	1.09	FA23A	11+ 3+75	11+ 3+75 - 11+06+75	60/ 28	. 0	NOZZLE CALIB.	6. 6 		LINA SCI CALED
MSEC 14-IN TRANSONIC	638	SS.18F	11+14+75	11*14*75 - 12*08*75	80/131	0	SRB	6 6		LINASSTGNED
MSEC 14-IN TRANSONIC	620	SAIAFA	12+23+75	12+23+75 - 03+19+75	140/144	200	SRB	(449)	2325	PHRI TSHED
MSFC 14-IN TRANSONIC	640	SA 14FB	1+ 6+76	1+ 6+76 - 03+11+76	48/549	5	SRB	(486)	2340	PUB! I SHED
MSEC 14-IN TRANSONEC	641	IA140A	6+ 1+76	6+ 1+76 - 08+03+76	64/222	230	5/1400	(74)	2335	PUBLISHED
MSFC 14-IN TRANSONIC	643	TAGE	8* 4*76	8* 4*76 - 08*20*76	40/80	<u>.</u> 0	ET INST.	· (6	ø. g	UNASSIGNED
MSFC 14-IN TRANSONFC	645	SA21F	9+16+76	9+16+76 - 10+06+76	56/120	200	SRB	(486)	2345	PUBL I SHED
MSEC 14-1N TRANSONIC	646	IA 1408	10* 1*76	10* 1*76 - 01*28*77	80/279	4	5/140C	(74)	2335	PUBL 1 SHED
MSFC 14-IN TRANSONIC	632	FA 15	1+31+77	1+31+77 - 05+01+77	104/320	0	DGIVE CYLINDER	6		UNASSIGNED
MSFC 14-IN TRANSONIC	630	FA 19.	5+ 2+77	5* 2*77 - 07*05*77	104/278	0	ACOUSTICS	6		UNASSIGNED
MSFC 14-IN TRANSONIC	648	SS30F	7*20*77	7*20*77 - 09*03*77	160/240	0	SRB	6 6		UNASSIGNED
MSEC 14-IN TRANSONIC	649	IA181	12+15+77	12+15+77 - 02+03+78	120/120	11	5/140c	(74)	2406	PUBLISHED
WSFC 14-IN TRANSONIC	652	FA25	4*15*78	4*15*78 - 08*01*78	200/294	0	5/140c	(74)	2437	PUBLISHED
WSFC 14-IN TRANSONIC	653	FA26	5+ 1+78 -	5+ 1+78 - 06+01+78	80/ 80	0	5/1400	(74)		UNASSIGNED
MSFC 14-IN TRANSONIC	655	FA27	3*14*79 -	3*14*79 - 05*16*79	150/160	0	5/140C	(74)	2460	IN PROCESS
MSFC 14-IN TRANSCHIC	657	FA29	4* 1*79 -	4* 1*79 - 05*00*79	400/ 0	0	5/140C	(74)		UNASSIGNED
MSFC 14-IN TRANSONIC	656	FA28	8* 1*70 -	8* 1*70 - 00*0**70	, 000					

DATAMAN ND STATUS	UNASSIGNED	2277 PUBLISHED	UNASSIGNED	2369 PUBLISHED	UNASSIGNED	UNASSIGNED
(01)	60	(461)	(ö.	(487)	(0)	(o).
MODEL REF.	DGIVE CYL	srB	ROCKET MOTOR	SRB	116 L.E.VORTEX	O L.E. VORTEX
RUNS	Ó	0.		0	116	.0
HOURS EST/CHG	50/328	100/100	896/0	80/ 80	80/400	80/400
OMPL.	10+ 1+75 - 02+04+74	9+30+74 - 06+17+75	2+17+76 - 04+21+76	4+27+76 - 02+01+77	4+18+77 - 08+15+77	06+01+79
TESTING SCHED. C	10+ 1+75 -	9+30+74 -	2 17 16 -	4+27+76 -	4 18 - 77 -	10+ 1+78 - 06+01+79
TEST NO.	MA 12F	SA 13F	FA21B	SA31F	LA97A	LA97B
Ö	031	034	980	039	\$	041
TUNNEL	(HIGH RN)	(HEGH RN)	(HIGH RN)	(.i.GH. RN)	(HIGH RN)	(HIGH RN)
WIND	MSFC 32-IN LUDWIEG (HIGH RN)	MSFC 32-IN LUBWIEG (HIGH RN)	MSFC 32-IN LUDWIEG (HIGH RN)	MSFC 32-IN LUDWIEG (. (IGH. RN.)	MSFC 32-IN LUDWIEG (HIGH RN)	MSFC 32-1', LUDWIEG (HIGH RN)
FACILITY	MSFC 32-I	MSFC 32-1	MSFC 32-1	MSFC 32-1	MSFC 32-I	MSFC 32-I

DATAMAN STATUS	UNASSIGNED	UNASSIGNED	UNASSIGNED	
ON O	_	_	_	
(ar)	6	. 6	(34)	•
MODEL Ref.	PRR ASCENT	PRR ASCENT	50 5/1400	
RUNS	0	0	20	
HOURS EST/CHG	40/ 32	32/ 32	80/ 92	
TESTING SCHED. COMPL.	11* 1*73 - 11*08*73	8* 1*74 - 08*07*74	8*15*75 - 09*64*75	•
TEST NO.	FS8A	FS8B	MA21	
, ON			702	
TUNNEL				
WIND FACILITY	JPL 20-IN SUPERSONIC	JPL 20-IN SUPERSONIC	JPL 20"IN SUPERSONIC	
ř.AC	JAP	JAN	JPL	

(*)

APPENDIX A

TABLE A5 - WIND TUNNEL TESTING BY FACILITY - OTHER GOVERNMENT COMPLEXES

PHASE C/D WIND TUNNEL TESTING PER FACILITY

Dataman Status	UNASSIGNED
, O O	-
(10)	(110)
MODEL	
REF.	125
RUNS	0
HOURS I	160/160
TESTING SCHED. COMPL.	11+ 1+79 - 12+20+79 160/160 0
TEST NO.	0547
2	
TUNNEL	
QNI A	RANSONEC
FACILITY	AEDC 1-FT TRANSONIC

FACI	FACILITY	QNIM	TUNNEL	VO	TEST .	TESTING SCHED.	ING COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(10)	DA NO.	DATAMAN STATUS
AEDC	16-FT	AEDC 16-FT TRANSONIC		410	IA 105A	9+ 2+77 -	11+20+77	290/281	882	5/1400	(41)	2398	PUBLISHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		470	1A156A	10*28*77	11+10+77	96/124	575	VEH 102	(68)	2403	PUBL I SHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		431	0A232	2*17*78	03*01*78	80/ 80	281	ADS PROBES	(66)	2414	PUBL I SHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		507	0A129	7* 7*78 -	07*15*78	40/ 64	477	VEH102	(47)	2434	PUBL I SHED
AEDC	. 16-FT	AEDC 16-FT TRANSONIC		517	IA 182	9+19+78 - 09+20+78	09+20+78	12/ 24	87	5/140c	(47)	2439	PUBLISHED
AEDC	16-FT	AEDC: 16-FT TRANSONIC		5 19 -	IA 183	11*15*78 - 11*16*78	11+16+78	12/ 12	40	VEH 102	(68)	2444	PUBLISHED
AEDC	. 16-FT	AEDC. 16-FT TRANSONIC		202	IA 132	11*27*78 - 12*14*78	12+14+78	96 /96	0	ET FORETANK	(89)	2449	PUBLISHED
AEDC	16-FT	AEDC: 16-FT TRANSONIC		551	0S46A	3* 4*80 - 03*05*80	03+02+80	8 /8	0	TPS	(109)	2505	PUBL I SHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		551	05468	3* 6*80 - 03*08*80	03*08*80	24/ 24	0	TPS	(108)	2505	PUBL I SHED
AEDC A-9	16-FT	LAEDC 16-FT TRANSONIC		55.1	05460	4*17*80 - 04*18*80	04 * 18 * 80	8 /8	0	TPS	(109)	2505	PUBL I SHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		574	0A253	7* 1*80 - 07*08*80	07 *08 *80	08 /08	139	5/1400	(84)	2486	PUBL I SHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		551	05460	8* 0*80 - 08*0 *8	08*00*60	8 /8	0	TPS	(108)	2505	PUBL I SHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		55.1	0S46E	9*15*80 - 10*20*80	10*20*80	8 /8	O	TPS	(108)	2505	PUBLISHED
AEDC	16-FT	AEDC: 16-FT TRANSONIC		551	0S46F	10* 1*80 - 10*02*80	10+02+80	8 /8	0	TPS	(108)	2505	PUBL I SHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		556	0549	1*28*81 - 02*04*81	02+04+81	40/ 44	0	TPS	(111)	2483	PUBL I SHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		594	MA34	3+12+81 - 03+20+81	03+20+81	40/ 60	0	ADS PROBES	(66)	2497	IN PROCESS
AEDC	16-FT	AEDC 16-FT TRANSONIC		608	9550	8*26*81 - 08*27*81	08+27+81	8 /8	•	TPS TILE	(108)	2489	PUBLISHED
AEDC	16-FT	AEDC 16-FT TRANSONIC		551	05466	12*10*81 - 12*11*81	12*11*81	8/ 17	•	Z TPS	(108)	2505	PUBL I SHED
											-		in :

PHASE C/D WIND TUNNEL TESTING PER FACILITY

AUG 01, 1984

FACILITY	QNIA	TUNNEL	NO.	TEST NO.	TESTING SCHED. COMPL.	HOURS RUNS EST/CHG	RUNS	MODEL	(ID)	NO DA	DATAMAN STATUS
AEDC 4-FT TRANSONIC	SONIC		390	FA22B	7*21*75 - 07*25*75	30/ 35	0	O DGIVE CYLINDER (O)	(o)		UNASSIGNED
AEDC 4-FT TRANSONIC	SONIC		409	FA20B	10* 3*75 - 10*13*75	60/ 52	0	O TRIPLE BODY	6		UNASSI GNED
AEDC 4-FT TRANSONIC	NSONIC		445	SA 16F	5* 5*76 - 05*06*76	8 · /8		SRB	(486)	2334	PUBL I SHED

WIND	TUNNEL	NO.	TEST NO.	TESTING SCHED.	JG COMPL.	HOURS EST/CHG	RUNS	MODEL REF.	(01)	NO DA	DATAMAN STATUS
AEDC A: / SUPERSONIC	ıc	323	IA13	7* 5*73 - (07*17*73	40/ 39	762	3/1398	(32)	2062	PUBL I SHED
AEDC A / SUPERSONIC	91	422	1A57	11+20+73 -	11+20+73	10/ 9	5	3/139,089B	(35)	2112	PUBL I SHED
\ \	10	422	13 1A61A	1*30*74 - (01*31*74	10/ 10	88	3/139,089B	(32)	2143	PUBL I SHED
\ 4	. 21	2.1AA	1A618	2+26+74 - (02*26*74	8 /8	6	3/139,089B	(52)	2226	PUBLISHED
ATUC A / SUPERSONIC	ũ,	60A	1A87	7*18*74 - (07*20*74	24/ 23	90	3/139B	(52)	2192	PUBLISHED
AED.C. A / SUPERSONIC	. J	7.1A	0A115A	7*29*74 - (07*31*74	24/ 28	83	4/140A,B(MDD)	(49)	2198	PUBLISHED
AEDC A / SUPERSONIC	21	ASA	LA111	3*21*75 - (03*28*75	36/ 33	*	3/1398	(52)	2242	PUBL I SHED
AEDC A / SUPERSONIC	10	44	IH41A	3*31*75 -	5+21+75	48/57	318	5/1400	(09)	2240	PUBLISHED
AEDC A / SUPERSONIC	ក្ន	FSA	SS17F	4* 4*75 - (04+05+75	12/ 12	0	SRB	6 ;		UNASSIGNED
AEDC A / SUPERSONIC	2	E 1Å	FH13	9*22*75 - (09*25*75	24/ 40	0	ET/SPIKE	(0)	2276	PUBL I SHED
AEDC A / SUPERSONIC	1.0	4 A	1H418	12*11*75 - (01+09+76	78/80	300	5/140C	(09)	2295	PUBL I SHED
AEDC A / SUPERSONIC	21	EOA	SH15F	12*29*75 - (02+20+76	12/100	•	SRB	(°)		UNASSIGNED
AEDC A / SUPERSONIC	21	F9A	S\$22F	1+ 1+76 - (01+15+76	64/45	0	SRB	(°)		UNASSIGNED
AEDC A / SUPERSONIC	īč	J3A	IH47	3* 8*76 = 0	03*19*76	40/ 31	178	5/140C	(09)	2312	PUBL I SHED
AEDC A. / SUPERSONIC	70	EGA	SH16F	3*10*76 - (04*19*76	12/8	0	SRB	(a.		UNASSIGNED
AEDC A / SUPERSONIC	ાં હ	425	1A40	6*23*76 - (06*29*76	26/41	346	5/1400	(75)	2293	PUBL I SHED
AEDC A / SUPERSONIC	ı. IC	K1A	IA142	8*11*76 - (08*18*76	78/ 64	*	5/140C	(22)	2346	PUBL I SHED
AEDC A / SUPERSONIC	ıc	KBA	MA28	9*29*76 - (09+29+76	7/ 11	• •	2A/089B	(9)		UNASSIGNED
AEDC A / SUPERSONIC	ĬĊ	PBA	IA143	11+ 8+76 -	11*13*76	85 /59	*	5/140C	(75)	2354	PUBLI SHED
AEDC A / SUPERSONIC	ມູເ	K2A	1.472	1+ 3+77 - (01+10+77	99 /09	0	5/140C	(60)	2372	PUBL I SHED
AEDC A / SUPERSONIC	21	P5A	0A209	3*21*78 - (03*30*78	62/69	324	WEH. 102	(105)	2415	PUBLIŚHED
AEDC A / SUPERSONIC	11.0	Š	IH85	4+19+78 - (04+26+78	60/ 65	337	5/140C	(09)	2431	PUBL I SHED
AEDC A / SUPERSONIC	Ţ.	420	FH15	5* 1*78 - (05+05+78	52/ 52	0	ET/SPIKE	(°)	2422	PUBL I SHED
AEDC A / SUPERSONIC	- 11 C	B67	IH102-3	5+ 1+79 - (06+01+79	10/ 10	•	5/140C	(83)	2464	PUBL I SHED
AEDC A / SUPERSONIC	S.	867	IH102-2	5* 1*79 -	06+01+79	12/ 12	0	5/1400	(26)	2464	PUBL I SHED
AEDC A / SUPERSONIC	110	B67	IH102-1	5* 1*79 -	06+01+79	26/ 26	•	5/140C	(09)	2464	PUBL I SHED
-											

UNASSIGNED

(72)

VEH 102

72/720

2*26*82 - 04*31*82

IA193

AEDC A / SUPERSONIC

Λ-95

DATAMAN NO. STATUS	2100 PUBLISHED	2100 PUBLISHED	2251 PUBLISHED			2099 PUBLISHED	2154 PUBLISHED	2134 PUBLISHED	2156 PUBLISHED	2230 PUBLISHED	2285 PUBLISHED	2355 PUBLISHED	2330 PUBLISHED	2132 PUBLISHED			2358 PUBLISHED	2132 PUBLISHED	2196 PUBLISHED	2252 PUBLISHED		2007	1 477	2241 PUBLISHED	2366 PUBLISHED	2356 PUBLISHED	2263 PUBLISHED	2342 PUBLISHED		1 • 4 •
(01)	(21)	(21)	(53)		(21)	(22)	(29)	(49)	(52)	(52)	(82)	(22)	(29)		\$ '	(22)	(83)	~ ~	(49)	(21)		(28.)	() -	(09)	(26)	(83)	(99)	(82)		(26.)
MODEL.	3/139B	3/139B	000,0	3/139	3/139B	13/139	3/139	4/140A.B	3/139B	3/1398	5/140C	3/139B	3/ 1335 3/1398	3661/6	9680	4/140B	5/1400	0898	4/140A.B(MDD)	3/139B	2001/0	5/1400	5/140C	5/1400	5/140C	5/140C				5/140C
RUNS	36	147		•	9	224	57	124	997	- 6	. 4	2	6	35	ო	454	220	7	4	. 6	97	117	622	- 80	153	139				8
HOURS EST/CHG	40/ 16	707		16/ 46	8 /8	48/38	20/ 20	40/ 32			•			16/ 16	16/8	72/ 67	36/27	16/ 12			12/ 12	36/35	84/59	12/ 13	24/ 23				48/52	42/ 56
TESTING SCHED. COMPL.	67+06+30 = 06+30+73		7* 9*73 - 0/*11*/3	9+13+73 - 09+21+73	9*26*73 - 09*26*73	9*29*73 - 10*04*73		1		ı	•	11	1	5* 6*74 - 05*15*74	6+25+74 - 06+25+74	7* 2*74 - 07*12*74	7*17*74 - 07*17*74				8*21*74 - 08*22*74	10* 4*74 - 10* 8*74	11+21+74 - 11+28+74	44 8475 - 01409475	- 1		5*12*75 - 05*12*75	6* 3*75 - 06*12*75	7*21*75 - 07*25*75	8*18*75 - 08*22*75
TEST NO.	į	OH3A	0H3B	6H0	OH4C	ğ		44A	0A7.7	IA17A	1A17B	0H50A	0H49A	0H52	LA42A	0H49B		a DCHO	LA42B	0A79	0H25A	0H54A	, 0H39A		96540	0H25B	09H0	0H74	0H54B	IA114
Ů.	-	288	289	353	352	- 0	705	352	47.4	422	422	526	525	524	550	5.7.A		58A	48A	7 1 A	83A	82A	. 4 4 4		7.4A	83A	B7A	87A	82A	C4A
TUNNEL																												••	ـ ف	13
QNIA		HYPERSONIC	/ HYPERSONIC	HYPERSONIC	O INO SOLICIO	HIVERSONIC	B / HYPERSONIC	AEDC B / HYPERSONIC	/ HYPERSONIC	B / HYPERSONIC	/ HYPERSONIC	/ HYPERSONIC	AEDC B / HYPERSONIC	/ HYPERSONIC	J NOEDSUNIC) III-ENSOURC	/ HAPERSONIC	/ HYPERSONIC	/ HYPERSONIC	/ HYPERSONIC	/ HYPERSONIC) HYPERSONIC		B / HYPEKSUNIC	/ HYPERSONIC	AEDC B / HYPERSONIC	B / HYPERSONIC	AEDC B / HYPERSONIC	AFINC R / HYPERSONIC	AEDC B / HYPERSONIC
EACTI-LTV		AEDC B /	AEDC B /	AEDC B	1 (AEDC B /	AEDC B /	AEDC B /	AEDC B /	AEDC B /	AEDC B /	T AEDC B	AEDC B	AEDC B		AEUC B	AEDC B	AEDC B /	AEDC B	AEDC B	AEDC B	2 0	שנה היים היים היים היים היים היים היים היי	AEDC B	AEDC B	AEDC B	AEDC B	AEDC B	A PINC R	AEDC. B

<i>-</i> ~ ~	١
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AFDC R / HYPERSONIC	82A	0H54C	8*26*75 - 0	09*02*75	48/ 48	120	5/140C	(82)	2342	PUBLI SHED
AEDC B / HYPERSONIC	E3A	0H75	9* 2*75 - 0	09*03*75	14/ 13	44	5/140C	(82)	2303	PUBL I SHED
8 /	DSA	MH2	9* 3*75 - 0	01*23*76	16/ 11	55	4/140B	(59)		UNASSIGNED
AEDC B. / HYPERSONIC	E9A	69H0	11*14*75 - 1	12*11*75	84/87	246	5/140C	(82)	2321	PUBL I SHED
AEDC B / HYPERSONIC	D8A	0A 169	3*26*76 - 0	04*09*76	12/ 43	200	5/1400	(07)	2320	PUBLISHED
AEDC B / HYPERSONIC	59A	1A22	2* 3*76 - 0	05*08*76	52/ 49	, 750	5/1400	(70)	2327	PUBL I SHED
AEDC B / HYPERSONIC	A7U	0H98A	6*17*76 = 0	06*23*76	43/ 44	284	5/1400	(09)	2340	PUBL I SHED
AEDC B / HYPERSONIC	47.U	0H98B	7*26*76 - 0	07*26*76	20/ 13	86	5/1400	(09)	2340	PUBLISHED
AEDC B / HYPERSONIC	K3A	0H57A	10* 6*76 - 2	20*06*76	13/ 11	4	140C	(65)	2367	PUBL I SHED
AEDC B / HYPERSONIC	K7A	MA29	10*14*76 - 1	10*14*46	7 /1	~ O	SEMISPAN	(0)	2451	PUBL I SHED
AEDC B / HYPERSONIC	K3A	0H57B	12* 4*76 - 1	12*05*76	26/34	4	140C	(65)	2367	PUBL I SHED
AEDC B / HYPERSONIC	R4A	OH84A-2	4*20*77 - 0	04*21*77	6 /9	16	5/1400	(83)	2388	PUBLISHED
AEDC B / HYPERSONIC	R4A	OH84A-1	4*20*77 - 0	04*21*77	20/ 16	8	5/1400	(09)	2388	PUBL I SHED
AEDC B / HYPERSONIC	T0A	1A148	4*27*77 - 0	05*03*77	52/ 52	272	5/1400	(0/	2384	PUBLISHED
A AEDC B / HYPERSONIC	R3A	0H56	12* 6*77 - 1	12*10*77	48/ 36	255	WING TIP SEAL	(16)	2410	PUBLISHED
AEDC B / HYPERSONIC	V2C	DH103A	2*20*78 - 0	02*21*78	12/8	7.2	VEH. 5 F'BODY	(83)	2420	PUBLISHED
AEDC B / HYPERSONIC	P4A	06Н0	3* 2*78 - 0	03*11*78	48/ 64	162	ELEV/ELEV	(94)	2451	PUBL I SHED
AEDC B / HYPERSONIC	P5A	0A208	3*30*78 - 0	04*06*78	52/ 47	183	VEH. 102	(105)	2416	PUBL I SHED
AEDC B / HYPERSONIC	865	0H102A	10*25*78 - 1	11*29*78	8/ 13	•	5/1400	(95)	2455	PUBLISHED
AEDC B / HYPERSONIC	B67	01:948	5* 0*79 - 0	62*00*90	72/ 72	•	5/1400	(09)	2464	PUBLISHED
AEDC B / HYPERSONIC	B67	0H105A	5*15*79 - 0	06*20*79	24/ 24	0	5/140C	(09)	2464	PUBLISHED
AEDC B / HYPERSONIC	69	0H109	10*27*80 - 1	11*24*80	48/ 40	0	5/1400	(99)	2490	PUBLISHED
AEDC B / HYPERSONIC	ВНО	0A258	11*25*80 - 0	01*06*81	48/128	541	VEH 102	(106)	2491	PUBL I SHED
AEDC B / HYPERSONIC	B17	0H107	1* 7*81 - 0	01*08*81	12/ 12	•	ELEV/ELEV	(64)	2492	PUBLISHED
AEDC B / HYPERSONIC	14	0A259	2*16*81 - 0	02*20*81	16/40	137	VEH 102	(72)	2493	PUBLISHED
AEDC B / HYPERSONIC	10	0H111	9*24*81 - 0	09*30*81	32/32	•	5/1400	(09)	2496	PUBL I SHED

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DATAMAN ND. STATUS	PUBLISHED
Š	2134
(ar)	(49)
MODEL REF.	20/ 16 56 4/140A.B
RUNS	56
HOURS EST/CHG	
TESTING SCHED. 'COMPL.	12* 3*73 - 12*04*73
TEST NO.	0A78
NO.	474
TUNNEL	
QNI M	AEDC C / HYPERSONIC
FACILITY	AEDC C /

AUG 01, 1984

PHASE C/D WIND TUNNEL TESTING PER FACILITY

DATAMAN ND. STATUS 2427 PUBLISHED (10) (09) MODEL 5/140C REF. 53 RUNS HOURS EST/CHG 24/ 12 4*27*78 - 04*28*78 TESTING SCHED. COMPL. TEST NO. DH 103B V2C TUNNEL AEDC D / HYPERSONIC MIND FACILITY

			PHASE C/	C/D WIND TUNNEL TESTING PER FACILITY	L TESTING PI	R FACILIT	>			¥	AUG 01, 1984	84	
FACILITY	TUNNEL	ON.	TEST NO.	TESTING SCHED.	COMPL	HOURS EST/CHG	RUNS	REF.	MODEL	(10)	DAT NO.	DATAMAN STATIUS	
NSWC HYPERSONIC EAB. (#9)	(6#)	1310	1310 0A171	- 82+2 +9	6+ 5+78 - 06+22+78 180/180	180/180		35 VEH. 102	102	(105)	2433	2433 PUBLISHED	

(*)

AUG 01,1984	DATAMAN (ID) NO. STATUS	(0) 2291 IN PROCESS
	MODEL (•
	REF.	8 140C
> -	RUNS	80
ER FACILIT	HOURS RUNS EST/CHG	64/ 64
PHASE C/D WIND TUNNEL TESTING PER FACILITY	TESTING SCHED. COMPL.	11*28*75 - 12*11*75 64/ 64
PHASE C/	TEST NO.	LA79
	Š.	1275
	TUNNEL	NSWC HYPERVELOCITY LAB (#8A)
	GNIA	/ELOCITY
	FACILITY	I NSWC. HYPERV

APPENDIX A

TABLE A6 - WIND TUNNEL TESTING BY FACILITY - PRIVATE FACILITY COMPLEXES

DATAMAN NO. STATUS	2308 PUBLISHED	2207 PUBLISHED	2453 PUBLISHED
(ar)	(19) 2308	(467)	(19)
MODEL Ref.	2A/089B	O SRB FORE BODY	41 5/140C
RUNS	106	0	4
HC:JRS R EST/CHS	120/105	120/120	200/320
TESTING SCHED. COMPL.	1*21*74 - 07*22*74 120/105	8* 8*74 - 09*18*74	10* 3*77 - 12*12*77
SCHE	1*2	* &	10
TEST NO.	IHS	SA29F	1H75
NO.	181	033	001
TUNNEL			
MIND	CALSPAN 32-IN LUDWIEG	CALSPAN 32-IN LUDWIEG	CALSPAN 32-IN LUDWIEG
FACILITY	CALSPAN 32	CALSPAN 3%	CALSPAN 32

FACILITY	GNIA	TOWNEL	NO.	TEST NO.	TESTING CCHED. COMPL.	HOURS RUNS EST/CHG	RUNS	MODEL Ref.	(10)	NO .	DATAMAN ND. STATUS
CALSPAN 8-FT TRANSONIC	TRANSON	v	053	1A36	6*15*73 - 06*22*73	60/ 80 120	120		(14)	2064	PUBL 7 S! 'ED
CALSPAN 8-FT TRANSONIC	TRANSONE	Ų	103	LA70	7*28*75 - 08*06*75	38/ 60	299	140C/REMUTE ELE (44)	(44)	2269	PUBLISHED
CALSPAN 8-FT TRANSONIC	TRANSONÎ	ပ	111	LA82	8* 8*76 - 08*19*76	30/ 32 66	 	SUPLURT TARES	(505)	2374	PUBL I SHED
CALSPAN 8-FT TRANSONIC	TRANSONI	ပ	113	LA 103	3*25*77 - 04*04*77	80/ 76	. 88	88 SUPPORT TARES (0)	60	2374	PUBL I SHED

FHASE C/D WIND TUNNEL TESTING PER FACILITY

AUG 01, 1984

A Comment of the second

UNASSIGNED 2164 PUBLISHED PUBL I SHED PUBLI SHED PUBLISHED PUBL I SHED PUBL I SHED PUBLI SHED PUBL I SHED DATAMAN NO. 2164 2249 2234 2249 2238 2319 2359 37) 37) 51) 37) 51) 37) 6 59) (99 MODEL 4/140A,B 4/140A,B 5/1.40C 5/140C 5/140C 5/140C 3/139 3/139 HOURS EST/CHG 80/14 24/336 32/ 32 120/250 120/120 80/145 48/80 80/152 80/32 10*29*73 - 12*13*73 10*29*73 - 12*13*73 8*10*74 - 10*04*74 10+14+74 - 10+18+74 11*18*74 - 11*23*74 12* 5*74 - 12*19*74 6* 1*75 - 06*05*75 12*17*75 - 02*23*76 8*30*76 - 10*17*76 TESTING SCHED. DA 113 IH33A ІНЗЗВ IH21 **9H12** 0A93 IH43 **0**H66 TH2F 184-2 8 8 120 737 131 8 189 131 TUNNEL CALSPAN HYPERSONIC SHOCK CALSPAN HYPERSONIC SHOCK CALSPAN HYPERSONIC SHOCK CALSPAN HYPERSONIC SHOCK CALSPAN HYPERSONIC SHOCK CALSPAN HYPERSONIC SHOCK CALSPAN HYPERSONIC SHOCK CALSPAN HYPERSONIC SHOCK CALSPAN HYPERSONIC SHOCK AIND FACILITY

FACILITY	
PER	
TESTING	
TUNNEL	
MIND	
2	-
HASE	

AUG 01, 1984

DATAMAN NO. STATUS	UNASSIGNED
(OI)	÷ (0)
MODEL Ref.	GULFSTREAM 2
RUNS	254
HOURS RUNS EST/CHG	200/200
TESTING SCHED. COMPL. E	6* 5*74 - 06*22*74 200/200 254 GULFSTREAM 2 (0)
TEST NO.	MA 18
D .	324
TUNNEL	
MIN	GRUMMAN - LOW SPEED
FACILITY	GRUMMAN -

;	WIND	TUNNEL	2	TEST NO.	TESTING SCHED. COMPL.	IG COMPL.	HOURS RUNS EST/CHG RE	RUNS	MODEL REF.	(01)	DATAMAN NO. STATUS	IAN STATUS
FACILIFY		!	Ç	. 4	10* 3*73 - 10*12*73 40/ 56 106 089B/C-5A	0*12*73	40/ 56	106	089B/C-5A	(2)	5	UNASSIGNED
LOCKHEED (CA) - LOW SPEED	A) - LOW	SPEED	363		:	1	40 140	45	089B/C-5A	(z)	5	INASSIGNED
LOCKHEED (GA) - LOW SPEED	MOT - (V:	SPEED	365	CA 103	11*26*73 - 11*28*13 - 24, 24	5/*87*1	747)				-

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PHASE C/D WIND TUNNEL TESTING PER FACILITY

DATAMAN NO. STATUS	UNASSIGNED
(ID)	(2)
MODEL REF.	089B/C~5A
RUNS	208
HDURS EST/CHG	160/165
TESTING SCHED. COMPL.	12*13*73 - 01*21*74 160/165 208 089B/C-5A
TEST NO.	120 CA 104
N	120
TUNNEL	ē
QNIA	OCKUEED (CA) - V/STO)
FACILITY	ייסבותבטטיי

DATAMAN NO. STATUS	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED
v (q1)	(399)	43)	(668)	6
Ü	Ë	(43)	3	.
MODEL Ref.	ET/C-5A	4/140A,B/C-5A	ET/C-5A	SRB
	50 E	100	64 E	s o
RUNS				
HOURS EST/CHG	40/ 56	120/ 80	40/ 40	32/30
EST	4			
ING COMPL.	5*30*74 - 06*04*74	6* 4*74 - 06*10*74	6*11*74 - 06*23*74	9*23*76 - 09*27*76
TESTING SCHED. COMPL.	5*30*74 -	6* 4*74 -	6*11*74 -	9*23*76
TEST NO.	CA 1	CA2-1	CA2-2	SA38F
NO.				190
TUNNEL	# SPEED	SPEED	SPEED	# SPEED
ONIA	- 10	- 10	- 1.0	- 101
	(GA)	(BA)	(GA)	(GA)
FACILITY	LOCKHEED (GA) - LOW SPEED	LOCKHEED (GA) - LOW SPEED	LOCKHEED (GA) - LOW SPEED	LOCKHEED (GA) - LOW SPEED

(4)

PHASE C/D WIND TUNNEL TESTING PER FACILITY

AUG 01, 1984

DATAMAN STATUS	PUBLISHED	2283 PUBLISHED
2	2004	2283
(ar)	(95) 2	. (36)
MODEL	040A ORB.	80/ 62 103 2A/089B(CAN)
REF.	JSC (2A/0
RUNS	120	103
HOURS ST/CHG	80/80	80/ 62
TESTING POWING COMPL. ES	8*25*72 - 09*06*72 80/ 80 120 JSC 040A DRB.	4*23*73 - 05*02*73
TES SCHED.	8*25*72	4*23*73
TEST NO.	MA 1	MA 14
NO.	407	422
TUNNEL	PEED :	PEED
WIND	FOW S	LOW S
FACILITY	LTV 15X20-FT LOW SPEED	LTV 15X20-FT LOW SPEED

E	
FACILIT	
G PER	
TESTING	•
TUNNET	
MIND	
C/0	
ASE	

FACILITY	MIND	TUNNEL	NO.	TEST NO.	TESTING SCHED. COMPL.	ING COMPL.	HDURS EST/CHG	RUNS	MODEL Ref.	(1D)	NO.	DATAMAN STATUS
t LTV 4X4-FT	t LIV 4X4-FT SUPERSONIC		458	IA4	11* 2*72 - 11*17*72	11*17*72	80/ 75	62	PRE-ATP/001	(6 .)	2015	PUBLISHED
LTV 4X4-FT	LTV 4X4-FT SUPERSONIC		488	0A84	12*10*73 - 12*14*73	12*14*73	80/115	207	4/140A.B	(49)	2037	PUBL I SHED
LTV 4X4-FT	LTV 4X4-FT SUPERSONIC		498	LA28	6+17+74 -	6*17*74 - 06*20*74	40/ 40	. 4	140A,B DRB	(°)	2280	PUBLISHED
LTV 4X4-FT	LTV 4X4-FT SUPERSONIC		512	LA58	9*30*74 -	9*30*74 - 10*04*74	49/80	72	140A,B	(42)	2215	PUBL I SHED
LTV 4X4-FT	LTV 4X4-FT SUPERSONIC		552	LA67	6*20*75 -	6*20*75 - 07*02*75	40/120	131	140C/REMOTE ELE	(44)	2266	PUBL I SHED
LTV 4XA-FT	LTV 4X4-FT SUPERSONIC		559	CA26	8* 4*75 -	8* 4*75 - 08*15*75	94/95	131	140C(M0D)/747	(48)	2273	PUBL I SHED
LTV 4X4-FT	LTV 4X4-FT SUPERSONIC		573	LA76	2*25*76 -	2*25*76 - 03*06*76	48/128	141	140C/REMOTE ELE	(44)	2305	PUBŁ I SHED
LTV 4X4-FF	LTV 4X4-FT SUPERSONIC		742	LA144	7*28*80 -	7*28*80 - C8*01*80	80/138	198	VEH 102	(106)	2484	PUBL I SHED

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AUG 01, 1984

DATAMAN ND. STATUS	UNASSIGNED
ON (OI)	~
QI)	(2)
MODEL Ref.	0898/747
RUNS	414
HOURS EST/CHG	16 /08
TESTING COMPL.	11*27*73 - 12*04*73 80/ 97 114 0898/747
TES' SCHED.	11*27*73
TEST NO.	CA92
NO.	132
TUNNEL	TOE
MIND	THE BOEING CO V/STOL
FACILITY	THE BOEING

A=112

WIND TUNNEL		TEST	TESTING	ING	HOURS	RUNS	MODEL	•	ភិ	DATAMAN
FACILITY	 	S	SCHED.	COMPL.	EST/CHG		REF.	(QI)	NO.	STATIUS
THE BOEING CO TRANSONIC	1431	CAS	9*20*74	9*20*74 - 09*30*74	144/181	520	140A, B/747	(45)	2211	PUBL I SHED
THE BOEING CO TRANSONIC	1431	CA20	10* 9*74	10* 9*74 - 10*15*74	115/115	288	140A.B/747	(45)	2247	PUBL I SHED
THE BOEING CO TRANSONIC	1472	CAG	5*20*75 -	5*20*75 - 06*06*75	200/265	509	140A.B/747	(42)	2262	PUBLISHED
THE BOEING CO TRANSONIC	1474	CS2	- 51*6 *9	6* 9*75 - 06*16*75	95/ 95	165	140A.B/747	(42)	** ***	UNASSIGNED
THE BOEING CO TRANSONIC	1477	CA9	6*25*75	6*25*75 - 07*14*75	320/302	82	4/140A,B/747	(41)	2268	PUBL 1SHED
THE BOEING CO TRANSONIC	1490	CS4	9*29*75 -	9*29*75 - 10*02*75	40/ 64	92	140A, B/747	(45)	2341	PUBLISHED
THE BOEING CO TRANSONIC	1493	CSS	11* 3*75 - 11*05*75	11*05*75	24/ 33	192	140A.B/747	(45)	2341	PUBLISHED
THE BOEING CO TRANSONIC	1496	CA14	11*13*75 -	11*13*75 - 12*02*75	160/236	850	140A,B/747	(45)	2307	PUBLISHED

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APPENDIX A

TABLE A7 - WIND TUNNEL TESTING BY FACILITY - SPACE SHUTTLE PRIME CONTRACTOR COMPLEX

FACILITY	W HND	TUNNEL	NO.	TEST NO.	TESTING SCHED.	NG COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(10)	NO.	DATAMAN STATUS
RE 7X11-FT EOW SPEED	DW SPEED	-	689	0A2	9*25*72 -	10+03+72	69 /08	183	ATP	(2)	2016	PUBL I SHED
RI 7X11-FT LOW SPEED	OW SPEED.		069	DAS	10+11+72 -	10*19*72	9 /09	88	ATP-MODIF	(2)	2017	PUBLISHED
RI 7X11-FT LOW SPEED	DW SPEED		693	IA?	11+ 3+72 -	11+16+72	24/ 41	53	PRE-ATP/001	(01)	2018	PUBL I SHED
RI 7X11-FT LOW SPEED	OW SPEED		694	OA6	11+16+72 -	12+06+72	60/177	218	PRR	(2)	2019	PUBLISHED
RE 7X11-FT LC	LOW SPEED		969	640	12*18*72 -	01*09*73	60/158	192	2A/089B	(2)	2020	PUBL I SHED
RI 7X11-FT LOW SPEED	ON SPEED		869	0A 10	1*30*73 -	02+16+73	120/109	300	2A/089B	(2)	2022	PUBL I SHED
RI 7X11-FT LOW SPEED	OW SPEED		669	0.45	2+21+73 -	02+28+73	98 /08	171	2A/089B	(2)	2021	PUBLISHED
RI 7X11-FT LOW SPEED	OM SPEED		700	0A14	2*28*73 -	03+15+73	100/151	196	2A/089B	(2)	2030	PUBL I SHED
RI 7X11-FT LOW SPEED	OM SPEED		701	0A 16	3*19*73 -	04 - 17 - 73	130/320	475	2A/089B	(2)	2038	PUBLISHED
PRI 7X11-FT LC	OW SPEED		704	OA 18	5* 8*73 -	05*17*73	100/114	189	3/1398	(43)	2045	PUBLISHED
TRE 7X41-FT LOW SPEED	OW SPEED		705	, 0A21A	5+21*73 -	06+04+73	100/ 72	348	3/1398	(43)	2053	PUBLISHED
RE 7X11-FT LOW SPEED	DW SPEED		705	0A21B	6*21*73 -	06*25*73	40/55	66	3/139B W/CANS	(43)	2053	PUBLISHED
RE 7X11-FT LOW SPEED	DW SPEED		7.08	0A71A	7*27*73 -	08*03*73	50/ 62	52	2A/089B	(3)	2068	PUBLISHED
RI 7X11-FT LOW SPEED	DW SPEED		709	0A57A	8* 6*73 -	8+17+73	100/163	61	2A/089B	(5)	2074	PUBLISHED
QI 7X11-FT LC	LOW SPEED		711	0469	8+28+73 -	09*01*73	80/ 71	205	3/1398	(43)	2081	PUBLISHED
RI 7X11-FF LO	LOW SPEFD		712	0A71C	9* 4*73 -	09*14*73	100/139	7.1	3/1398	(43)	2086	PUBLISHED
RI 7X11-FT LOW SPEED	OW SPEED:		713	0A578	9*15*73 -	09+17+73	40/123	72	2A/089B	(2)	2080	PUBLISHED
RT 7X11-FT LOW SPEED	DW SPEED		7.15	DA62A	10* 5*73 -	10*23*73	120/195	86	4/140A,B	(43)	2097	PUBL I SHED
RI 7X11-FT LOW SPEED	DW SPEED		716	0A86	10*26*73 -	11*09*73	80/174	331	4/140A.B	(43)	2114	PUBLISHED
RE 7X11-FF LOW SPEED	SW SPEED.		717	0A62B	11*13*73 -	12*06*73	100/240	448	4/140A.B	(43)	2104	PUBLISHED
RI 7X11-FT LOW SPEED	OW SPEED		719	0A37	1* 7*74 -	01*25*74	80/103	112	4/140A.B	(42)	2140	PUBL I SHED
RI 7X11-FI LOW SPEED	CHAS MO		721	0A110	3*15*74 -	03+20+74	80/ 48	82	4/140A.B	(91)	2155	PUBL I SHED
RT 7X11-FT LOW SPEED	OW SPEED		724	0A118	4*24*74 -	04+25+74	48/ 40	54	4/140A.B	(43)	2139	PUBLISHED
RE 7X11-FT LOW SPEED	OW SPEED		726	0A119A	- 47*17*9	06*25*74	20/ 45	45	4/140A.B	(91)	2187	PUBLISHED
RI 7X11-FT LOW SPEED	DW SPEED		730	0A119B	8+22*74 -	09+06+74	60/100	213	4/140A.B	(16)	2203	PUBL I SHED
RI 7X11-FT LOW SPEED	DW SPEED		.731	0A 123	- 474 -	09*10*74	40/ 47	41	4/140A.B (ALT)	(43)	2202	PUBL I SHED
- -						-						-

751 QA 163.2 11+24+75 - 12+09+75 16O/144 215 4/140A,B (16) 2289 PUBLISHED 752 0A 172 12+15+75 - 01+13+76 120/210 122 4/140A,B(ALT) (43) 2294 PUBLISHED 754 0A 236 3+29+76 - 04+15+76 60/83 113 4/140A,B(ALT) (43) 2314 PUBLISHED 759 0A 236 5+28+76 - 06+02+76 10/37 204 ADS PROBES (99) 2337 PUBLISHED 757 0A 228 5+29+76 - 05+01+76 16/23 45 VEH 102 (ADS) (57) 2322 PUBLISHED 764 0A 238 10+25+76 - 11+30+76 24/48 57 ADS PROBES (99) 2351 PUBLISHED 776 0A 238 11+20+76 - 11+30+76 40/88 13 VEH 102 (39) 2402 PUBLISHED 775 0A 250 7+1+77 07+07+77 32/34 23 140C(ALT) (45) 2392<	736 737	0A124 0A143	10+14*74 - 10+23+74 11+ 6+74 - 11+11+74	60/ 60	127	4/140A.B	(43)	2221	PUBL I SHED PUBL I SHED
0A172 12*15*75 - 01*13*76 120/210 122 4/140A.B(ALT) (43) 2294 0A236 3*29*76 - 04*15*76 60/83 11:3 4/140A.B(ALT) (43) 2314 0A236 5*28*76 - 06*02*76 10/37 204 ADS PROBES (99) p337 0A228 5*29*76 - 05*01*76 16/23 45 VEH 102 (ADS) (57) 2322 0A238 10*25*76 - 11*08*76 24/48 57 ADS PROBES (99) 2351 0A223 11*20*76 - 11*30*76 40/88 13 VEH 102 (39) 2402 0A1638 12*21*76 - 12*23*76 35/35 99 4/140A.B (16) 2361 0A250 7************************************	737	0A 143	11+24+75 - 12+09+75	160/144	215	4/140A,B	(16)	2289	PUBL I SHED
0A236 5.28.76 - 04*15.76 60/ 83 113 4/140A.B(ALT) (43) 2314 0A226 5.28.76 - 06*02.76 10/ 37 204 ADS PROBES (99) P337 0A228 5.29.76 - 05.01.76 16/ 23 45 VEH 102 (ADS) (57) 2322 0A238 10.25.76 - 11.30.76 24/ 48 57 ADS PROBES (99) 2351 0A233 11.20.76 - 11.30.76 40/ 88 13 VEH 102 (39) 2402 0A163B 12.21.76 - 12.23.76 135/ 35 99 4/140A.B (16) 2361 0A250 7.1.77 - 07.07.77 32/ 34 23 140C(ALT) (45) 2392	752	0A172	12*15*75 - 01*13*76	120/210	122	4/140A.B(ALT)	(43)	2294	PUBLISHED
0A228 5+29+76 - 05+01+76 16/23 45 VEH 102 (ADS) (57) 2322 0A238 10+25+76 - 11+08+76 24/48 57 ADS PROBES (99) 2351 0A223 11+20+76 - 11+30+76 40/88 13 VEH 102 (39) 2402 0A163B 12+21+76 - 12+23+76 135/35 99 4/140A.B (16) 2361 0A250 7+1+77 - 07+07+77 32/34 23 140C(ALT) (45) 2392	754	0A176	3*29*76 - 04*15*76	60/ 83	113	4/140A.B(ALT)	(43)	2314	PUBLISHED PUBLISHED
0A238 10*25*76 - 11*08*76 24/ 48 57 ADS PROBES (99) 2351 0A223 11*20*76 - 11*30*76 40/ 88 13 VEH 102 (39) 2402 0A1638 12*21*76 - 12*23*76 135/ 35 99 4/140A.B (16) 2361 0A250 7**1*77 - 07*07*77 32/ 34 23 140C(ALT) (45) 2392	757	0A228	5*29*76 - 05*01*76	16/ 23	45	VEH 102 (ADS)	(15)	2322	PUBLISHED
0A223 11*20*76 - 11*30*76 40/ 88 13 VEH 102 (39) 2402 0A163B 12*21*76 - 12*23*76 135/ 35 99 4/140A.B (16) 2361 0A250 7*1*77 - 07*07*77 32/ 34 23 140C(ALT) (45) 2392	764	0A238	10*25*76 - 11*08*76	24/ 48	57	ADS PROBES	(66)	2351	PUBL I SHED
0A163B 12*21*76 - 12*23*76 ₁ 35/35 99 4/140A.B (16) 2361 0A250 7* 1*77 - 07*07*77 32/34 23 140C(ALT) (45) 2392	776	0A223	11+20+76 - 11+30+76	40/88	13	VEH 102	(-6E-)	2402	PUBL I SHED
0A250 7+ 1+77 - 07+07+77 32/ 34 23 140C(ALT) (45) 2392	788	0A 163B	12+21+76 - 12+23+76	32/32	σ. 6	4/140A.B	(16)	2361	PUBL I SHED
		DA250	7+ 1+77 - 07+07+77	32/ 34	23	140C(ALT)	(-45.)	2392	PUBL I SHED

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WIND	TUNNEL	NO.	TEST	TESTING SCHED. COMPL.	HOURS 1	RUNS	MODEL REF.	(10)	NO OA	DATAMAN STATUS
RI 7-FT TRISONIC		276	0468	6*20*73 - 6*29*73	09 /09	44	3A/140A	(49)	2061	2061 PUBLISHED
RI. 7-FT TRISONIC		278	0.491	10*26*73 - 11*01*73	40/ 40	38	4/140A/B	(49)	2116	PUBLISHED
RI 7-FT TRISONIC		280	IA69	1*10*74 - 01*14*75	24/ 25	14	4/140A.B	(19)	2122	PUBL I SHED
RI 7-FT TRISONIC		281	1468	1*18*74 - 01*29*74	32/ 36	34	2A/089B	(13)	2144	PUBL I SHED
RI 7-FT TRISONIC		282	JA70	5* 3*74 - 05*24*74	80/161	173	4/140A.B	(43)	2175	PUBL I SHED
RE 7-FE TRISONIC		297	1A141.	3+31+76 - 04+05+76	30/ 30	37	5/1400	(72)	23.15	PUBL I SHED

APPENDIX A

TABLE A8 - WIND TUNNEL TESTING BY FACILITY - UNIVERSITY FACILITIES

MAS MAS
7* 9*75 - 08*11*75
8*23*75 - 09*05*75

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ED 1128 CA4 5.28+74 - 06+07+74 64/120 100 4/140A.B/747 (43) UNNASIGNED ED 1136 CA3 8+15+74 - 08+30+74 120/131 194 4/140A.B/747 (43) 2201 PUBLISHED ED 1136 CA11 2+12+75 - 02+20+75 100/116 120 ET/747 (6) 2236 PUBLISHED ED 1160 CS1 6+9+75 - 06+13+75 80/95 165 140A.B/747 (8) 2338 PUBLISHED ED 1170 CS3 9+12+75 - 09+15+75 40/80 129 140A.B/747 (8) 2338 PUBLISHED ED 1178 CA15A 10+16+75 - 11+01+75 240/239 379 4/140A.B/747 (43) 2349 PUBLISHED ED 1178 CA15B 11+19+75 - 11+26+75 75/110 93 4/140A.B/747 (43) 2349 PUBLISHED ED 1184 CA17 6+21+76 - 07+02+76 152/152 261 4/140A.B/747 (43) 2349 PUBLISHED	1128 CA4 5,28+74 - 06+07+74 64/120 100 4/140A.B/747 (43) 1136 CA3 8+55+74 - 08+30+74 120/131 194 4/140A.B/747 (43) 2201 1146 CA11 2+12*75 - 02*20+75 100/116 120 ET/747 (0) 2236 1160 CS1 6+9+75 - 06+13+75 80/95 165 140A.B/747 (8) 2238 1170 CS3 9+12*75 - 09+15*75 40/80 129 140A.B/747 (8) 2338 1173 CA15A 10+16*75 - 11*26*75 75/110 93 4/140A.B/747 (43) 2348 1178 CA15B 11*19*75 - 11*26*75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6+21*76 - 07*02*76 152/152 261 4/140A.B/747 (43) 2349	NIND.	TUNNEL	NO.	TEST NO.	TESTING CHED.	FNG COMPL.	HOURS EST/CHG	RUNS	MODEL Ref.	(10)	NO.	DATAMAN STATUS
1136 CA3 8 * 55.74 - 08*30*74 120/131 194 4/140A.B/747 (43) 2201 1146 CA11 2 * 12 * 75 - 02 * 20*75 100/116 120 ET/747 (0) 2236 1160 CS1 6 * 9 * 75 - 06 * 13 * 75 80/ 95 165 140A.B/747 (8) 2338 1170 CS3 9 * 12 * 75 - 09 * 15 * 75 40/ 80 129 140A.B/747 (8) 2338 1173 CA15A 10 * 16 * 75 - 11 * 01 * 75 240/239 379 4/140A.B/747 (43) 2348 1178 CA15B 11 * 19 * 75 - 11 * 26 * 75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6 * 21 * 76 - 07 * 02 * 76 152/152 261 4/140A.B/747 (43) 2349	1136 CA3 8 · 5 · 7 & - 08 · 30 · 7 4 120/131 194 4/140A · B/747 (43) 2201 1146 CA11 2 · 12 · 75 - 02 · 20 · 75 100/116 120 ET/747 (0) 2236 1160 CS1 6 · 9 · 75 - 06 · 13 · 75 80/ 95 165 140A · B/747 (8) 2236 1170 CS3 9 · 12 · 75 - 09 · 15 · 75 40/ 80 129 140A · B/747 (8) 2338 1173 CA15A 10 · 16 · 75 - 11 · 01 · 75 240/239 379 4/140A · B/747 (43) 2348 1178 CA15B 11 · 19 · 75 - 11 · 26 · 75 75/110 93 4/140A · B/747 (43) 2348 1184 CA17 6 · 21 · 76 - 07 · 02 · 76 152/152 261 4/140A · B/747 (43) 2349	200		+ 128	CA4	5+28+74 -	06+07+74	64/120	5	4/140A.B/747	(43)		UNASSIGNED
1146 CA11 2*12*75 - 02*20*75 100/116 120 ET/747 (0) 2236 1160 CS1 6*9*75 - 06*13*75 80/95 165 140A.B/747 (8) 1170 CS3 9*12*75 - 09*15*75 40/80 129 140A.B/747 (8) 2338 1173 CA15A 10*16*75 - 11*01*75 240/239 379 4/140A.B/747 (43) 2347 1178 CA15B 11*19*75 - 11*26*75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6*21*76 - 07*02*76 152/152 261 4/140A.B/747 (43) 2349	1146 CA11 2*12*75 - 02*20*75 100/116 120 ET/747 (0) 2236 1160 CS1 6*9*75 - 06*13*75 80/95 165 140A.B/747 (8) 1170 CS3 9*12*75 - 09*15*75 40/80 129 140A.B/747 (8) 2338 1173 CA15A 10*16*75 - 11*01*75 240/239 379 4/140A.B/747 (43) 2347 1178 CA15B 11*19*75 - 11*26*75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6*21*76 - 07*02*76 152/152 261 4/140A.B/747 (43) 2349	UNIV. OF WASH. LOW SPEED	3 . 6	1136	CA3	8+,5+74	08+30+74	120/131	194	4/140A.B/747	(43)	2201	PUBL I SHED
1160 CS1 6+9+75 - 06+13+75 80/95 165 140A.B/747 (8) 1170 CS3 9+12*75 - 09+15*75 40/80 129 140A.B/747 (8) 2338 1173 CA15A 10+16*75 - 11+01*75 240/239 379 4/140A.B/747 (43) 2347 1178 CA15B 11+19*75 - 11+26*75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6+21*76 - 07+02*76 152/152 261 4/140A.B/747 (43) 2349	1160 CS1 6+9+75 - 06+13+75 80/95 165 1400A.B/747 (8) 1170 CS3 9+12+75 - 09+15+75 40/80 129 1400A.B/747 (8) 2338 1173 CA15A 10+16+75 - 11+01+75 240/239 379 4/140A.B/747 (43) 2347 1178 CA15B 11+19+75 - 11+26+75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6+21+76 - 07+02+76 152/152 261 4/140A.B/747 (43) 2349	UNIV. OF WASH I DW SPEED) E	1146	CA11	2*12*75 -	02+20+75	100/116	120	E1/747	6	2236	PUBL I SHED
1170 CS3 9+12*75 - 09+15*75 40/ 80 129 140A.B/747 (8) 2338 1173 CA15A 10+16*75 - 11+01*75 240/239 379 4/140A.B/747 (43) 2347 1178 CA15B 11+19*75 - 11+26*75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6+21*76 - 07+02*76 152/152 261 4/140A.B/747 (43) 2349	1170 CS3 9+12*75 - 09+15*75 40/ 80 129 140A.B/747 (8) 2338 1173 CA15A 10+16*75 - 11+01*75 240/239 379 4/140A.B/747 (43) 2347 1178 CA15B 11+19-75 - 11+26*75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6+21*76 - 07+02*76 152/152 261 4/140A.B/747 (43) 2349		, ,	1160	. CS 1	- 446 +9	06+13+75	80/ 95	165	140A.B/747	(8)		UNASSIGNED
1173 CA15A 10*16*75 - 11*01*75 240/239 379 4/140A.B/747 (43) 2347 1178 CA15B 11*19*75 - 11*26*75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6*21*76 - 07*02*76 152/152 261 4/140A.B/747 (43) 2349	1173 CA15A 10*16*75 - 11*01*75 240/239 379 4/140A,B/747 (43) 2347 1178 CA15B 11*19*75 - 11*26*75 75/110 93 4/140A,B/747 (43) 2348 1184 CA17 6*21*76 - 07*02*76 152/152 261 4/140A,B/747 (43) 2349) - <u>(</u>	1170	: 53	9+12*75 -	09+15*75	40/80	129	140A.B/747	(8	2338	PUBL I SHED
1178 CA158 11+19-75 - 11+26+75 75/110 93 4/140A,B/747 (43) 2348 1184 CA17 6+21+76 - 07+02+76 152/152 261 4/140A,B/747 (43) 2349	1178 CA15B 11*19*75 - 11*26*75 75/110 93 4/140A.B/747 (43) 2348 1184 CA17 6*21*76 - 07*02*76 152/152 261 4/140A.B/747 (43) 2349	UNIV. UN WASH. LOW SPEED	j . i	* * * * * * * * * * * * * * * * * * * *	CAISA	10*16*75 -	11*01*75	240/239	379	4/140A.B/747	(43)	2347	PUBL I SHED
1184 CA17 6+21*76 - 07+02*76 152/152 261 4/140A.B/747 (43) 2349	1184 CA17 6+21*76 - 07+02+76 152/152 261 4/140A,B/747 (43) 2349	UNIV. OF WASH, LOW SPEED			C 4 5	11+19*75 -	11+26+75	75/110	63	4/140A,B/747	(43)	2348	PUBL I SHED
		UNIV OF WASH. LOW SPEED	ED :ED	1184	CA17	6+21*76 -	07+02+76	152/152	261	4/140A.B/747	(43)	2349	PUBL I SHED

APPENDIX A

TABLE A9 - WIND TUNNEL TESTING BY MODEL

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PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID :

ZUS	ED	ED	ė	.	~ <u>@</u>	8
DOCUMENT STATUS	PUBLISHED	PUBL I SHED				
NO.	2003	2005	2006	2010	2011	2012
NO.	409	555	556	545	558	554
TUNNEL						
MIM	ELIUM	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN FRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC
>	H NI-	T NI-	T VI-	NI-	-IN T	IN T
FACILITY	LARC 22-IN HELIUM	SFC 14	SFC 14	SFC 14	SFC 14	SFC 14
	31 L	206 M	179 н	361 M	132 M	200 M
RUNS						
HOURS F	40/ 80	96 /09	5.7 84	150/257	14/ 75	160/144
LNG	11*06*72	10*07*72	10*19*72	11*28*72	12*07*72	12+23+72
TESTING SCP:D. (9*18*72	9*27*72 - 10*07*72	10*10*72 - 10*19*72	10+19+72 - 11+28+72	11*29*72 - 12*07*72	12* 9*72 - 12*23*72
			•	•	-	-
TEST NO.	MA2	0.41	IAIA	IA 18	MA9F	SA1F
SCALE	.0040	.0040	.0040	.0040	.0040	.0040
MODEL						
REF.	ATP	ATP	ATP	ATP	ATP	PRR/SRB

MODEL ID

MODEL.	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	FACILITY WIND TUNNEL	ÖN	NO .	DOCUMENT STATUS
AŢŖ	.0405	0A2	9*25*72 - 10×03*72	80/ 69	183	RI 7X11-FI LOW SPEED	689	2016	PIRE TAHED
ATP-MODIF	.0405	0.45	10*11*72 10*19*72	9 /09	88	RI 7X11-FT LOW SPEED	069	2017	PIRE ICHED
PRR	.0405	0A6	11*16*72 - 12*06*72	60/177	2.18	RI 7X11-FT LOW SPEED	694	2019	PURI TOHEN
2A/089B:	.0405	0A9	12*18*72 - 01*09*73	60/158	192	RI 7X11-FT LOW SPEED	969	2020	PUBLICHED
2A/089B	.0405	0A 10	1*30*73 - 02*16*73	120/109	300	RI 7X11-FT LOW SPEED	869	2022	PUBLISHED
2A/089B	.0405	0A45	2*21*73 - 02*28*73	80/86	171	PI 7X11-FT LOW SPEED	669	2021	PUBLISHED
2A/0895	.0405	0A14	2*28*73 - 03*15*73	100/151	196	RI 7X11-FT LOW SPEED	00	2030	PUBLISHED
24/0898. V	.0405	OA 16.	3*19*73 - 04*17*73	130/320	475	RI 7X11-FF LOW SPEED	701	2038	PUBL ISHED
24/0898 12	.0405	0A7.1A	7*27*73 - 08*03*73	50/ 62	52	RI 7X11-FT LOW SPEED	708		PUR I SHED
₩ 2A/089B	.0405	0A57A	8* 6*73 - 8*17*73	100/103	61	RI 7X11-FT LOW SPEED	502		PITER ISHED
2A/089B	0405	0A578	9*15*73 - 09*17*73	40/123	72	RI 7X11-FT LOW SPEED	713		PUBLISHED
089B/C-5A	.0405	MA 16	10* 3*73 - 10*12*73	40/56	106	LOCKHEED (CA) - LOW SPEED	363		UNASSIGNED
0893/C-3A	.0400	CA 103	11*26*73 - 11*28*73	24/ 24	45	LOCKHEED (CA) - LOW SPEED	365	· ·	INASSIGNED
787/8680	.0405	CA92	11*27*73 - 12*04*73	76 /08	114	THE BOEING CO V/STOL	132	_	UNASSIGNED
089B/C-5A	.0405	CA 104	12*13*73 - 01*21*74	160/165	208	LOCKHEED (GA) - V/STOL	120	_	UNASSIGNED
2A/0898(MDD)	.0405	MA24	7* 9*75 - 08*11*75	24/176	500	TEXAS A+M 7X10-FT LOW SPEED	7513	_	UNASSIGNED

DOCUMENT NO. STATUS	UNASSIGNED
ON.	3234
WIND TUNNEL	E DENSITY
ONIA	VARIABL
FACILITY	10/ 10 130 LARC MACH 8 VARIABLE DENSITY
RUNS	130
HOURS RUNS EST/CHG	10/ 10
TESTING SCHED. COMPL	9*19*72 - 09*26*72
TEST NO.	OH1A-1
SCALE	0900
MODEL REF.	PRE-ATP/001

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	DDCUMENT ND. STATUS	UNASSIGNED	UNASSIGNED
	NO.	3234	3283
	WIND TUNNEL	ABLE DENSITY	ABLE DENSITY
	FACILITY	LARC MACH 8 VARIABLE DENSITY	40/ 24 35 LARC MACH 8 VARIABLE DENSITY
	RUNS	120	35
e-in-bull-bull-bull-bull-bull-bull-bull-bul	HOURS EST/CHG	10/100 120	
	TESTING SCHED. COMPL	9*19*72 - 09*26*72	11* 6*72 - 11*08*72
	TEST NO.	OH1A-2	0H1B
	SCALE	.0140	.0140
MCDEL ID : 4	MODEL REF.	PRE-ATP/001	PRÉ-ATP/001

DOCUMENT STATUS	UNASSIGNED
Š	
NO.	3234
TUNNEL	DENSITY
QNIA	8 VARIABLE
FACILITY	120 LAPC MACH 8 VARIABLE DENSITY
RUNS	120
HOURS EST/CHG	10/100
COMPL	- 09*26*72
TES SCHED.	9*19*72 -
TEST NO.	.0058 0H1A-3
SCALE	.0058
MODEL	PRE-ATP/004
REF.	PRE-
	MODEL TEST TESTING HOURS RUNS WIND TUNNEL DOCUME SCALE NO. SCHED. COMPL EST/CHG FACILITY WIND TUNNEL ND. ND.

T STATUS	HED	HE D	HED	HED	HED	#ED	GNED
DOCUMENT ST	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	UNASSIGNED
NO.	2007	2009	2002	2014	2173	2069	
NO.	147	650	626	1007	711	1031	K8A
TUNNEL			SSURE				
QNIM	ARC 3.5-FT HYPERSONIC	ARC 6X6-FT SUPERSONIC	LARC 8-FT TRANSONIC PRESSURE	ARY PLAN	ARC 14-FT TRANSONIC	ARY PLAN	AEDC A / SUPERSONIC
FACILITY	ARC 3.5-F	ARC 6X6-F	LARC 8-FT	LARC UNITARY PLAN	ARC 14-FT	LARC UNITARY PLAN	AEDC A /
RUNS	54	214	73	110	54	81	0
HOURS EST/CHG	200/176	200/320	60/ 84	100/100	80/160	50/ 50	1/1
ESTING COMPL	10*17*72	11*10*72	12+19+72	12*08*72	03*12*73	5*14*73 - 05*18*73	9*29*76 - 09*29*76
TEST SCHED.	10* 2*72 - 10*17*72	10+24+72 - 11+10+72	11+19+72 -	11*27*72 - 12*08*72	2*12*73 -	5*14*73	9*29*76 -
TEST NO.	0A4	0A3	LA1		IA8	MA7	MA28
SCALE	.0450	.0150	.0150	.0150	.0150	.0150	.0150
MODEL						38	8 6
REF.	A.T.P.	ATP	ATP	ATP	ATP	2A/089B	2A/089B

(#)

MODEL ID :

DOCUMENT NO. STATUS	2013 PUBLISHED	2024 PUBLISHED
 Q	616	989
WIND TUNNEL	α	
GNIM .	SUPERSONI	RANSONIC
FACILITY	92 ARC 9X7-FT SUPERSONIC	85 ARC 11-FT TRANSONIC
RUNS	92	82
HOURS RUNS EST/CHG	40/244	80/160
TING	10+11+72 - 11+03+72	2*12*73 - 02*23*73
TESTING SCHED.	10+11+72	2*12*73
TEST NO.	IA2	IA7
SCALE	.0190	0190 IA7
MODEL	PRE-ATP/001	PRF-ATP/001
REF.	PRE	PRE

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ID:	
MODEL I	

DOCUMENT ND STATUS	CHACCIONE	Canal district	UNASSIGNED
NO	1160		
ACILITY WIND TUNNEL	UNIV. OF WASH. LOW SPEED	UNIV. OF WASH. LOW SPEED	GENERAL DYNAMIC - LOW SPEED
RUNS	165 U	129 U	
HOURS 1	80/95	40/80	60/58
ESTING COMPL	6* 9*75 - 06*13*75	9*12*75 - 09*15*75	16 - 02*11*76
SCHED.	2*6 *9	9*12*7	2* 5*76
TEST NO.	CS1.	CS3	ese cse
SCALE	.0460	.0460	.0460
MODEL.	140A.B/747	140A,B/747	140A,B/747

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PHASE C/D WIND TUNNEL TESTING PER MODEL

AUG 01,1984

DOCUMENT NO. NO. STATUS	458 2015 PUBLISHED
WIND TUNNEL	
WIND	LTV 4X4-FT SUPERSONIC
	62
HOURS RUNS EST/CHG	80/ 75
TESTING SCHED. COMPL	11* 2*72 - 11*17*72 80/ 75 62 LTV 4X4-FT SUPERSONIC
TEST NO.	IA4
SCALE	.0075 IA4
MODEL Ref.	PRE-ATP/001

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PHASE C/D WIND TUNNEL TESTING PER MODEL

AUG 01, 198

DOCUMENT ND. ND. STATUS		TOP LOBELISHED	UNASSIGNED
Q.	5	3	0 6
TUNNEL		CTMANAC	
FACILITY	LARC UNITARY PLAN	LARC 16-FT TRANSONIC	RI 7X11-FT LOW SPEED
RUNS	99	8	53
HOURS RUNS EST/CHG	.80/ 60	416/400	24/ 41
TESTING SCHED. COMPL	9*15*72 - 09*25*72 .80/ 60 30 LARC UNITARY PLAN	10*10*72 - 11*15*72	11* 3*72 - 11*16*72 24/ 41 53 RI 7X11-FT LOW SPEED
TEST NO.	MAS	FA1	IA3
SCALE	.0193 MAS	.0193	.0193
MODEL.	PRE-ATP/001	PRE-ATP/001	PRE-ATP/001

AUG 01, 1984

	IT STATUS	ED	ED.	<u>.</u>	ED
	DOCUMENT STA	2401 PUBLISHED	PUBL I SHED	PUBLISHED	PUBL I SHED
	NO DOC	2401	2401	2401	2401
	9	705	705	705	705
	TUNNEL				
	QNIA	ARC 9X7-FT SUPERSONIC	FRANSONIC	ARC 8X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC
	FACILITY	ARC 9X7-FT	ARC 11-FT TRANSONIC	ARC 8X7-FT	ARC 8X7-FT
	RUNS	4	2.	ო	е е
	HDURS R EST/CHG	60/ 64	09 /09	12/ 24	58/ 52
	TESTING COMPL	7*23*73 - 08*01*73	73 - 08*08*73	73 - 08*11*73	8+11+73 - 08+14+73
	TES' SCHED.	7+23+73	8* 2*73	8* 9*73	8+11*73
	TEST NO.	1518	IS1A	IStC	0S3
	SCALE	.0400	.0400	.0400	.0400
MODEL ID : 11	MODEL	2A/089B	2A/089B	2A/089B	2A/089B
	REF.	2A/	2A/	2A/	2A/

MODEL #12 WAS NOT BUILT....

PHASE C/D WIND TUNNEL TESTING PER MODEL

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MODEL ID :

MODEL REF.	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	WIND TUN FACILITY	TUNNEL NO.	2	DOCUMENT STATUS
	. (1	0.00.70 . 05.07.73	50/ 50	0,	MSFC 14-IN TRANSONIC	559	2158	PUBLISHED
2A/089B	.0040	1268	54-70-10 CT-107-10	116/116	245	MSFC 14-IN TRANSONIC	568	2029	PUBL I SHED
2A/089B	.0040	0A47	3*28*73 - 04*05*73	09 /09	Ç	MSFC 14-IN TRANSONIC	566	2026	PUBLISHED
2A/089B	.0040		01+01+10 = 01+0 +4	20 /00	2000	MSFC 14-IN TRANSONIC	570	2028	PUBLISHED
2A/089B	.0040	IA31FB	4*13*73 - 04*30*73	30/2/1	2 6	MSFC 14-IN TRANSONIC	571	2039	PUBLISHED
2A/089B	.0040		4*30*73 - 03*03*73	25 /51	9	MSFC 14-IN TRANSONIC	567	2027	PUBLISHED
2A/089B	.0040	1A32F	5* 9*73 - 05*24*73	700	2 4	MSEC 14-IN TRANSONIC	573	2072	PUBLISHED
2A/089B	.0040	IA31FC	6*21*73 - 07*09*73	32/ 31	- Y	MSEC 14-IN TRANSONIC	582	2158	PUBLISHED
A 2A/089B	.0040		10* 2*73 - 10*11*/3	*/ /08		MSFC 14-IN TRANSONIC	588	2123	9 PUBLISHED
13 ²	.0040		12*20*73 - 01*04*74	96 /04	? ?	DI 7-FT TRISONIC	281	2144	PUBLISHED
2A/089B	.0040		1*18*74 - 01*29*14	35/30	5 4	APERSONIC (M=6)	1=6) 6468	38 2311	1 PUBLISHED
8680	.0040		5*21*75 - 05*21*75	01 /01	•	1 APC 4-FT HYPERSONIC	446	3 2311	1 PUBLISHED
8680	.0040		8*26*75 - 08*29*75	36/36	7	I APC 4-FT HYPERSONIC	. 267	7 2311	1 PUBLISHED
0898	.0040	LA78	1*15*76 - 01*28*/6	01 /01	r	MILL THE CO CO.	- - 445	5 2343	3 PUBLISHED
140C	.0040	LA85	4* 7*76 - 05*24*76	88 / 88	64	LAKC 22-'N MELIUM	•		

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DOCUMENT ND. STATUS	ACAR Dubt Truing	OF STATE OF	2065 PUBLISHED
NO.	710	, C	710
TUNNEL			
WIND TUNNEL	63 ARC 9X7-FT SUPERSONIC	CALSPAN 8-FT TRANSONIC	7*11*73 - 07*27*73 220/220 133 ARC 8X7-FT SUPERSONIC
FACILITY	ARC 9X7-FT	CALSPAN 8-1	ARC 8X7-FT
RUNS	63	120	133
HOURS R	120/156	3 60/80 120	220/220
TESTING HED. COMPL	4*23*73 - 05*07*73 120/156	6*15*73 - 06*22*73	07*27*73
TES! SCHED.	4*23*73 -	6*15*73 -	7*11*73 -
TEST NO.	IA 12B	1436'	1A12C
SCALE	.0190	.0490	.0190
MODEL REF.	2A/089B(MOD)	2A/089(MDD)	2A/089(MDD)

DOCUMENT STATUS	UNASSIGNED	PUBLISHED	PUBL I SHED	PUBL I SHED
NO DE		2035	2250	2210
8	100	158	182	200
WIND TUNNEL	LARC HIGH RE'S NUMBER HELIUM	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC
FACILITY			ARC 3.5-F	ARC 3.5-F
RUNS	200	81	92	65
HOURS EST/CHG	160/80	40/144	160/128	80/196
ING	*72 - 01*01*73 160/ 80 200	4*18*73 - 06*01*73	12* 2*73 - 12*21*73	9* 7*74 - 09*25*74
TESTING SCHED.	11*15*72 -	4*18*73 -	12* 2*73 -	9* 7*74 -
TEST NO.	H.	OH2	OH43	IH27
SCALE	.0000	1,0000	1.0000	1.0000
MODEL Ref.	TPS TILES	TPS TIMES	TPS TILES	TPS TILES

DOCUMENT STATUS	5 PUBLISHED	7 PUBLISHED	3 PUBLISHED	1 PUBLISHED	9 PUBLISHED	1 PUBLISHED
DOG .	2155	2187	2203	2221	2289	2361
ON	721	726	730	737	751	788
TUNNEL						
MIND	RI 7X11-FT LOW SPEED	RI 7X41-FT LOW SPEED	RI 7X11-FT LOW SPEED			
FACILITY		RI 7X41-1			RI 7X11-1	
RUNS	82	45	213	09	215	66
HOURS EST/CHG	80/48 85	20/ 45	60/100	40/55	160/144	35/35
FESTING . COMPL	3*15*74 - 03*20*74	6*17*74 - 06*25*74	8*22*74 - 09*06*74	74 - 11*11*74	11*24*75 - 12*09*75	12*21*76 - 12*23*76
TEST SCHED.	3*15*74 -	6*17*74 -	8*22*74 -	11* 6*74 -	11*24*75 -	12*21*76
TEST NO.	DA 1 10	0A119A	0A119B	0A143	0A 163A	0A 163B
SCALE	.0405	.0405	. 0405	.0405	.0405	.0405
MODEL Ref.	4/140A,B	4/140A.B	4/140A.B	4/140A.B	4/140A.B	4/140A,B

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DOCUMENT ND. STATUS	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBLISHED
ON.	2032	2032	2032	2032	2032
NO.	707	707	707	707	707
TUNNEL					
ONIW TY	ARC 11-FT TRANSDNIC	ARC 11-FT TRANSONIC	8X7-FT SUPERSONIC	9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC
FACILITY		ARC 11	ARC 8)	ARC 9)	ARC 8)
RUNS	118	86	102	65	46
HOURS EST/CHG	90/113	90/103	09 /09	100/120	09 /09
ING	4* 2*73 - 04*14*73	04*23*73	4*22*73 - 05*01*73	05*09*73	5* 2*73 - 05*10*73
TESTING SCHED. C	4* 2*73 -	4*12*73 -	4*22*73 -	5* 2*73 -	5* 2*73 -
TEST	IA9A	0A 12A	IA9C		0A12C
SCALE	.0300	.0300	0300	.0300	.0300
MODEL					
REF.	2A/089B	2A/089B	2A/089B	2A/089B.	2A/0898

MODEL.	SCALE	TEST NO.	TEST SCHED.	STING	HOURS FEST/CHG	RUNS	FACILITY WIND TUNNEL	ÖN	. DN	DOCUMENT STATUS
2A/089B	.0150	0A11A	4* 9*73 -	- 04*17*73	144/176	62	ARC 3.5-FT HYPERSONIC	157	2044	PUBL I SHED
2A/089B	.0150	0A43	4*18*73 -	- 05*04*73	128/160	137	ARC 6X6-FT SUPERSONIC	406	2050	PUBLISHED
2A/089B	.0150	0A118	5*14*73 -	- 05*25*73	140/160	70	ARC 3.5-FT HYPERSONIC	160	2059	FUBLISHED
2A/089B	.0150		6* 1*73 -	- 06*08*73	40/54	47	LARC UNITARY PLAN	1035	2057	Pt-BLISHED
2A/089B	.0150	DA17-2	6*18*73 -	- 07*06*73	.20/100	52	LARC LOW TURBULANCE PRESSURE	138	2058	PUBLISHED

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DOCUMENT STATUS	PUBL I SHED	PUBLİSHED	PUBL I SHED	PUBLISHED	PUBL I SHED
DOC NO	2308	2282	2435	2453	2440
NO.	181	038	041	8	044
TUNNEL	IJ	ONIC	ONIC	G	DNIC
MIND -	IN LUDWIE	FT SUPERS	FT SUPERS	IN LUDWIE	FT SUPERS
FACILITY	CALSPAN 32-IN LUDWIEG	LERC 10X10-FT SUPERSONIC	LERC 10X10-FT SUPERSONIC	CALSPAN 32-IN LUDWIEG	LERC 10X10-FT SUPERSONIC
RUNS	106	57	163	4	4.
HOURS RUNS EST/CHG	120/105	240/264	240/226	200/320	200/102
COMPL	1+21+74 - 07+22+74	5* 5*75 - 09*03*75	9*22*76 - 04*14*77	10* 3*77 - 12*12*77	1*25*78 - 03*10*78
TESTING SCHED. (1*21*74 -	5* 5*75 -	- 9*22*76	10* 3*77	1*25*78 -
TEST NO.	IHS	1H34	1H39	1H75	IH83
SCALE	.0225	.0225	.0225	.0225	.0225
MODEL					
REF.	2A/0898	5/140C	5/140C	5/140C	5/140C

MODEL # 20 WAS NOT BUILT

			PHASE C/D WIND TUNNEL TESTING PER MODEL	TUNNEL TEST	ING PI	ER MODEL	¥	AUG 01, 1984	1984
MODEL ID : 21			· National Assessment Control of					- 200011-0000000	
MODEL	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS RE EST/CHG	RUNS	WIND TUNNEL FACILITY	NO.	- ÖQ .	I DOCUMENT STATUS
3/1398	.0175	ОНЗА	6*28*73 - 06*30*73	40/ 16	36	AEDC B / HYPERSONIC	288	2100	PUBLISHED
3/1398	.0175	0H38	7* 9*73 - 67*11*73	40/ 23	147	AEDC B / HYPERSONIC	289	2100	PUBL I SHED
3/139B	.0175	0H4C	9*26*73 - 09*26*73	8 /8	9	AEDC B / HYPERSONIC	352	2225	PUBL I SHED
3/1398	.0175	0A99	3*26*74 - 4*12*74	50/ 52	4	LARC 60-FT. VACUUM SPHERE	3289	2172	PUBL I SHED
3/1398	.0475	0H25A	8+21+74 - 08+22+74	12/ 12	82	AEDC B / HYPERSONIC	83A	2252	PUBLISHED
-		-	•						-

REF.	MODEL	SCALE	TEST NO:	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	FACILITY FACILITY	NO.	NO NO	DOCUMENT STATUS
3/139		.0175	0H4B	9*29*73 - 10*04*73	48/38	224	AEDC B / HYPERSONIC	352	2099	PUBL I SHED
3/139		.0175	1143	10+31+73 - 11+09+73	128/128	79	ARC 3.5-FT HYPERSONIC .	178	2136	PUBL I SHED
3/139		.0175	IHI	12* 3*73 - 12*14*73	100/100	44	LARC UNITARY PLAN	1071	2153	PUBLI SHED
3/139		.0175	1H20	1+18+74 - 02+06+74	192/192	105	ARC 3.5-FT HYPERSONIC	185	2148	PUBL I SHED
3/139		.0175	FHTO	1*21*74 - 01*29*74	32/ 32	· თ	AEDC F / HYPERSONIC	291	2197	PUBL I SHED
3/139		.0175	0 0	2* 6*74 - 02*11*74	:48/ 56	33	ARC 3.5-FT HYPERSONIC	183	2151	PUBL I SHED
3/139B		.0175	0H49A	4+ 3+74 - 04+06+74	216/ 17	8	AEDC B / HYPERSONIC	525	2355	PUBL I SHED
V 4/1408		.0175	0H49B.	7* 2*74 - 07*12*74	72/ 67	454	AEDC B / HYPERSONIC	57A	2222	PUBL I SHED
=14		0175	0H26	7*22*74 - 07*29*74	96 /08	56	ARC B.5-FT HYPERSONIC	199	2193	PUBL I SHED
3) ; ;			*					

MODEL	
PER	
TESTING	-
TUNNEL	•
GNIA	
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PHASE	

TEST TESTING		PHASE C/D WIND TUNNEL TESTING PER MODEL	AUG 01, 1984
SCHED. COMPL EST/CHG FACILITY	RUNS TUNNEL	HOURS RUNS	NO. NO. STATUS

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DOCUMENT	NO. STATUS	2067 PUBLISHED
8	9	2067
	 O	544
WIND TUNNEL		C BLOWDOWN
MIND		FRANSONIC
	FACILITY	6* 4*73 - 06*07*73 120/ 24 18 LARC 26-IN TRANSONIC BLOWDOWN 544
RUNS		\$
HOURS	EST/CHG	120/ 24
FESTING	COMPL	- 06*07*73
TES	SCHED.	6* 4*73
TEST	, O	082
	SCALE	.0250
MODEL		
·	REF.	ATP

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PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID : 25

AUG 01, 1984

DOCUMENT ND. STATUS	0389 DEBI TENED	2382 PUBLISHED	_	
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NO	27	027	0H64	•
WIND TUNNEL	LOW FAC.	OW FAC.	HLITY	
WIND	SE BASE FI	SE BASE FI	POWER FAC	
FACILITY	19 MSFC IMPULSE BASE FLOW FAC.	MSFC IMPULSE BASE FLOW FAC.		
RUNS	19	99	200	
HOURS R EST/CHG	40/100	340/334	200/450	
FESTING SCHED. COMPL	7*26*70 - 8* 8*74	5*15*74 - 07*16*74	4*14*75 - 06*20*75	
TEST NO.	IA109	OH8F		
SCALE	.0400	.0400	.0400	
MODEL.	2A/089B	2A/089B	2A/089B	

MODEL ID : 26

DOCUMENT NO. STATUS	2085 PUBLISHED 2085 PUBLISHED	2138. PUBLISHED
	208	213
O	171	1059
TUNNEL	o i	
MIM	HYPERSON) HYPERSON	IRY PLAN
FACILITY	ARC 3.5-FT HYPERSONIC	LARC UNITARY PLAN
RUNS	35	-14
HOURS EST/CHG	96/104 35	
ING	8=17=73 - 09=04=73	11=12=73 = 11=16=73
TESTING SCHED. (8*17*73 -	11+12+73
TEST	0H10	1H2 1H4
i.	0100	0100
MODEL		
	RE1.	3/139

MODEL ID: 27

	2	UNASSIGNED
Ş	2	156
WIND TUNNEL	-	1YPERSONIC
	FACILITY	4 ARC 3.5-FT HYPERSONIC
RUNS		
HOURS	EST/CHG	120/136
FESTING	COMPL	4* 2*73 - 04*06*73 120/136
TES	SCHED.	4* 2*73
TEST	ON	MAG
	SCALE	.0150
MODEL	REF.	RI PRR ORB.

MODEL # 28 WAS NOT BUILT

REF.	MODEL	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS F EST/CHG	RUNS	WIND	TUNNEL	NO	NO.	DOCUMENT NO. STATUS
37.139		.0175	0H0	9*13*73 - 09*21*73	16/ 16	6.1	AEDC B / HYPERSONIC		353	2251	2251 PUBLISHED
 3/139	•••	.0175	0H11	10*24*73 - 11*01*73	40/ 37	23	AEDC F / HYPERSONIC		VA35	2141	PUBLISHED
3/139	*****	.0175	OH4A	11*12*73 - 12*05*73	20/ 20	22	AEDC B / HYPERSONIC		352	2154	PUBL I SHED
3/1398		.0175		5* 6*74 - 05*15*74	16/ 16	32			524	2330	PUBL I SHED
4/140B		.0175		9* 3*75 - 01*23*76	16/ 11	22			DSA		UNASSIGNED
4/140B		.0175	MH 1	1*13*76 - 01*23*76	24/64	30	AEDC F / HYPERSONIC		29A		UNASSI GNED

TUNNEL DOCUMENT NO. NO. STATUS	SLOWDOWN 547 2146 PUBLISHED
FACILITY WIND TUNNEL	10*18*73 - 10*24*73 120/ 58 94 LARC 26-IN TRANSONIC BLOWDOWN 547
RUNS	94
HOURS RUNS EST/CHS	120/58
TESTING ED. COMPL	3 - 10*24*73
SCHED.	10+18+7
TEST NO.	154
SCALE	.0425 IS4
MODEL Ref.	2A,'083B

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MODEL

DOCCMENT 4D. STATUS	PUBLISHED
NO.	2049
NO.	3619
WIND TUNNEL	DENSITY
QNIA	3 VARIABLE
FACILITY	3 36/ 40 52 LARC MACH B VARIABLE DENSITY
RUNS	52
HOURS REST/CHG	36/ 40
TESTING SCHED. COMPL	1*30*73 - 02*05*73
TEST NO.	0H40
SCALE	0900
MODEL REF.	2A/089B

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TUNNEL ND. ND. STATUS	323 2062 PUBLISHED	168 2071 PUBLISHED	169 2078 PUBLISHED	yp. 100 2126 CANCEL	175 2102 PUBLISHED	NP. 101 2113 PUBLISHED	NP. 102 2127 PUBLISHED	422 2112 PUBLISHED	422 2143 PUBLISHED	4VP. 107 2133 PUBLISHED	HYP. 108 2137 PUBLISHED	HAP. 109 2137 PUBLISHED	HYP 113 2195 PUBLISHED			118 2261
. • .	AEDC A / SUPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	LARC 31-IN CONT-FLOW HYP	ARC 3.5-FT HYPERSONIC	LARC 31-IN CONT-FLOW HYP	LARC 31-IN CONT-FLOW HYP.	AEDC A / SUPERSONIC	AEDC A / SUPERSONIC	LARC 31-IN CONT-FLOW HYP	LARC 31-IN CONT-FLOW HYP.	A A STATE STATE TOW HYP.	WH WO IT THE CONT.	LARC 31-IN CONT-FLUE	LARC 31-IN CONT-FLOW HYP.	HOC LOSS STREET
	762	39	18	126	25	75	19	5	88	*	r R	9 9		96	357	
EST/CHG	40/39	06 /08	50/ 40	40/ 48	64/80	20/ 60	16/ 20	10/	10/ 10	2 70	34/ 12		16/20	40, 48	100, 168 357	
COMPL	- 07*17*73	7*76*73 - 07*31*73	1-20-10 01-01	8* 1*/3 - 03+03-73	8*30*73 C3 C1 73	10*10*73 - 10*78*73	11*13*73	11#12#13 11#20#73	77.50	+/+15*(O -	02*13*/4	_	- 2+22+74	- 08*16*74	- 06*03*75	
SCHED.	7* 5*73	21.5 -1	1+40+10	8* 1*/3	27-02-03	10-10-0	10-31-73	57-71-11	11*20*13	1*30*/4	2*11*74	2*14*74 -	2*20*74	8*12*74	5* 6*75	
TEST NO.		IATS	UA23-2	1A10	LAZS	IA15	0A85	LA35	IA57	IA61A		1460	DA 105	0A82	MA22	
SCALE	1	0100	0100	0100	0100	0100	- 0100		.0100	.0100	.0100	.0100	.0100	.0100	0100	
MODEL Ref.		3/139B	3/139B	3/1398	3/1398	3/139B	3/139B	3/139B	3/139,089B	13/139,089B	3/139,089B	3/139.0898	4/140A.B	4/140A.B	. 7440A B	2.1

MODEL ID : 33

AHG 04 1987

DDCUNENT STATUS	2075 PUBLISHED
, o	20.
NO.	3778
TUNNEL	DENSITY
QNIA	VARIABLE
FACILITY	78 LARC MACH 8 VARIABLE DENSITY
RUNS	78
HOURS F	40/ 64
TESTING SCHED. COMPL	3*19*73 - 03*28*73 40/ 64
TEST NO.	OH4 1A
SCALE	0900
MODEL.	2A/089B i

DOCUMENT NO. NO. STATUS

TUNNEL

2055 PUBLISHED

2063 PUBLISHED

580

2092 PUBLISHED

415 584 585 581

2042 PUBLISHED 2093 PUBLISHED

2063 PUBLISHED

UNASSIGNED

2103 PUBLISHED 2125 PUBLISHED

589

7422

702

2095 PUBLISHED

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MGDEL ID : 34	MODEL Ref.	3/1398,W/CANS	3A/139B	3A/139B	3A/139B	3A/1:39B	3A/139B.	4/140A.B	4/140A.B	4/140A.B	5/140C
	SCALE	.0040	0040	0040	.0040	0040	0040	.0040	.0040	.0040	.0040
	TEST NO.	0A48	IA37A	1A48	0A72	1A52	IA37B	0849	IA62F	ÓA88	MAZI
	TES1 SCHED.	5*25*73 -	7+10+73	7+18+73	7+30+73	10+11+73	10* 15*73	10* 18* 73	11+15+73	12+11+73	8+15+75
	TESTING COMPL	5 6*11*73	7*10*73 - 07*13*73	7+18+73 - 07+21+73	7+30+73 - 08+24+73	10+11+73 - 10+17+73	10*15*73 - 10*16*73	10*18*73 - 11*09*73	11+15+73 - 11+19+73	12*11*73 - 12*28*73	8*15*75 - 09*04*75
	HOURS. EST/CHG	100/166	96 /09	20/ 24	40/176	16/ 28	16/ 22	198/170	16/ 19	09 /09	80/ 92
•	RUNS	364	64	40	42	27	42	4 ·	33	191	50
	FACILITY	MSFC 14-IN TRANSONIC	MSEC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	LARC 22-IN HELIUM	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	LARC 22-IN HELIUM	JPL 20-IN SUPERSONIC
	QUIA	TRANSONIC	TRANSONIC	TRANSONIC	HELIUM	TRANSONIC	TRANSONIC	TRANSONIC	TRANSONIC	HELIUM	UPERSONIC
	•										

MODEL ID : 35

DOCUMENT NO. STATUS	2339 IN PROCESS
NO.	167
TUNNEL	
QNIM	19 ARC 2X2-FT TRANSONIC
FACILITY	ARC 2X2-FT
RUNS	w
HOURS FEST/CHG	08 /96
TESTING SCHED. COMPL	7*15*76 - 07*27*76
TEST NO.	0832
SCALE	. 1820
MODEL REF.	TILE PANEL

A-156

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MODEL REF.	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	WIND TUNNEL	NO.	DOCUMEN NO.	DOCUMENT STATUS
4/140A.B	.0150	1A29	; 9*12*73 - 09*25*73	80/184	111	ARC 6X6-FT SUPERSONIC	630	2077	PUBL I SHED
4/140A.B	.0150	DAG3	9+25+73 - 9+28+73	64/80	86	ARC 6X6-FT SUPERSONIC	630	2077	PUBL1 SHED
4/140A.B	.0150	DA64	10*30*73 - 10*31*73	20/30	28	LARC UNITARY PLAN	1063	2.108	PUBLISHED
4/140A.B	.0150	1Å35	11+ 1+73 - 11+02+73	06 /09	22	LARC UNITARY PLAN	1063	2108	PUBL I SHED
4/140A.8	.0150	1A16	11+17+73 - 12+04+73	80/52	6	ARC 3.5-FT HYPERSONIC	180	2124	PUBLISHED
4/140A.B	.0150	0A26	11+17+73 - 12+04+73	64/140	27	ARC 3.5-FT HYPERSONIC	180	2124	PUBLISHED
4/140A.B	.0150	0483	5* 8*74 - 05*16*74	80/160	34	ARC 3.5-FT HYPERSONIC	194	2177	PUBL 1 SHED
¥4/140A,B	.0150	0A 102	6+17+74 - 06+18+74	18/.18	ō	LARC 8-FT TRANSONIC PRESSURE	687	2229	PUBLISHED
-157	-					<u>:</u>			

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REF.	MODEL	SCALE	TEST NO.	FESTING SCHED.	ING	HOURS EST/CHG	RUNS	WIND TUNNEL FACILITY	NO.	N.	DOCUMENT NO STATUS
3/139		.0100	IH24	10+29+73 -	73 - 12+13+73	80/145	31	31 CALSPAN HYPERSONIC SHOCK	400	2164	2164 PUBLISHED
9/. 139		.0100	OH12	10*29*73 - 12*13*73	12+13+73	80/145	32	32 CALSPAN HYPERSONIC SHOCK	100	2164	2164 PUBLISHED
5/1400		.0100		10*14*74 - 10*18*74	10*18*74	32/ 32	o .	10 CALSPAN HYPERSONIC SHOCK	120	2249	2249 PUBLISHED
2011		9		12+ 5+74 -	12+19+74	48/80	24	48/ 80 24 CALSPAN HYPERSONIC SHOCK	131	2249	2249 PUBLISHED

AUG 01, 1984

MODEL ID : 38								**************************************
MODEL	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS RUNS EST/CHG	SNAS	FACILITY WIND TUNNEL	NO.	DOCUMENT STATUS
PRE-ATP/001	. 0058	OH1A-4	9*19*72 - 09*26*72	10/100	120	9+19+72 - 09+26+72 10/100 120 LARC MACH 8 VARIABLE DENSITY	3234	NAME
2A/089B	3500.	OH4 18	5* 8*73 - 05*10*73 40/ 24	40/ 24	8		4060	4060 ACC ACC

DOCUMENT NO. STATUS

2402 PUBLISHED 2380 PUBLISHED

118

2405 PUBLISHED 2430 PUBLISHED

118 218 325

2389 PUBLISHED 2364 PUBLISHED

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	!	WIND FACILITY	RI 7X11-FT LOW SPEED	ARC 11-FT TRANSONIC	ARC 8X7-FT SUPERSONIC	ARC 9X7-FT SUPERSONIC	ARC 12-FT PRESSURE	LARC 16-FT TRANSONIC	
		RUNS	13	981	1.88	240	373	156	
UNNEL 153		HOURS EST/CHG	40/88	160/480	80/100	80/348	160/160	. 60/160	
PHASE C/D WIND TUNNEL 1E31130		TESTING SCHED. COMPL	11*20*76 - 11*30*76	2* 8*77 - 04*02*77	A* 6*77 - 04*20*77	A+ 45 * 77 - 05 * 03 * 77	0+12+77 - 11+11+77	5±15±78 - 06+09+78) - -
		TEST NO.	0 0 0 0 0	CASS	0A 145A	0A 145C	0A145B		0A2 / 0A
		SCALE		0000	.0500	.0500	.0500	0200	.0500
	MODEL ID : 39	MODEL		102	102	102	102	102	102
	MODEL.	<u></u>		VEH: 102	VEH 102	VEH. 102	VEH. 102	VEH 102	VEH 102

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PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID : 40

AUG 01, 1984

DOCUMENT	STATU	2450 PUBLISHED	2450 PUBLISHED
	<u>Q</u>	245	
!		140	154
WIND TUNNEL			
WEND		TRANSONIC	TRANSONIC
FACILITY		ARC 2X2-FT	110/ 96 0 ARC 2X2-FT TRANSONIC
RUNS	;	99	0
HOURS RUNS EST/CHG	154/268	74/ 200	140/ 96
TESTING SCHED. COMPL	10*09*24		9/ *61 *10
TES. SCHED.	9* 9*74 -	11.410475	
TEST NO.	0S4A	0848	l • .
SCALE	1.0000	1.0000	
MODEL) had		
REF.	PANELS	PANELS	

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MODEL ID: 4

DOCUMENT STATUS	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED
DOC NO.	2096	2166	2098	2105	2110
NO.	644	1041	172	646	118
WIND TUNNEL	18 LARC MACH 8 VARIABLE DENSITY	RY PLAN	ARC 3.5-FT HYPERSONIC	LARC MACH 8 VARIABLE DENSITY	FREON
FACILITY	LARC MACH	LARC UNITARY PLAN		LARC MACH	
RUNS		12	30	59	22
HOURS FEST/CHG	8 /8	35/80	64/ 72	40/ 48	40/ 40
TESTING SCHED. COMPL	6*13*73 - 06*13*73	7* 6*73 - 07*13*73	8+13+73 - 08+17+73	10* 9*73 - 10*16*73	10*19*73 - 10*30*73
TEST NO.	OH13	IH16	IHIS	IH17	
SCALE	0900	0900	0900	0900	0900
MODEL Ref.	2A/089B	2A/089B	2A/089B.	24/0898	2A/089B

PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID: : 42

AUG 01, 1984

AENT STATUS	2060 PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	UNASSIGNED	PUBL I SHED
DOCUMENT NO. S	Э	2057 PU				5	
N ON	206	205	2058	2082	2073		2215
Ň	163	1035	138	167	1043	149	512
TUNNEL	4.		RESSURE				
WIND	ARC 3.5-FT HYPERSONIC	ARY PLAN	LARC LOW TURBULANCE PRESSURE	ARC 3.5-FT HYPERSONIC	ARY PLAN	LARC 16-FT TRANSONIC	LTV 4X4-FT SUPERSONIC
FACILITY	ARC 3.5-F	LARC UNITARY PLAN	LARC LOW	ARC 3.5-F	LARC UNITARY PLAN		
RUNS	38	36	65	37	99	22	72
HOURS R EST/CHG	9/ /08	40/ 54	60/124	96 /09	30/ 40	75/ 75	49/80
TESTING COMPL	06*18*73	06+15+73	07*06*73	7*18*73	7*26*73	11+11+73	10+04*74
TESTING SCHED. (6* 4*73 - 06*18*73	6*11*73 - 06*15*73	6*18*73 - 07*06*73	7*11*73 - 7*18*73	7*20*73 - 7*26*73	11* 5*73 - 11*11*73	9*30*74 - 10*04*74
TEST NO.	0.458		0A17-1	, 0A73	0470	LA36A	LA58
SCALE	.0150	.0150	.0150	.0450	.0150	0150	.0150
MODEL							
REF.	3/1398	3/1398	3/1398	3/1398	3/139B	140A.B	140A.B

MODEL ID: : 4

							ORI OF		IAL OR	PA QL			,								
DOCUMENT STATUS	PUBL I SHED	PUBL I SMED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL 1 SHED	PUBLISHED	PUBL I SHED	PUBL I SHED	UNASSIGNED	UNASSIGNED	PUBL I SHED	PWBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	
000 NO	2045	2053	2053	2081	2086	2097	2114	2.104	2139			2201	2202	2209	2290	2347	2348	2294	2314	2349	
00	704	705	705	711	712	715	716	717	724	1128		1136	731	736	129	1173	1178	752	754	1184	
TUNNEL		¥r-								PEED	SPEED	PEED				PEED	PEED	_	-	SPEED	
QNIM	7X11-FT LOW SPEED	7X11-FT LOW SPEED	LOW SPEED	LOW SPEED	LOW SPEED	LOW SPEED	LOW SPEED	LOW SPEED	LOW SPEED	SH. LOW S	A) - LOW SPEED	SH. LOW S	LOW SPEED	LOW SPEED		ISH. LOW SPEED	ISH. LOW SPEED	LOW SPEED	LOW SPEED	ASH. LOW	
FACILITY	RI 7X11-FT	RI 7X11-FT	RI 7X11-FT	RI 7X11-FT	RI 7X11-FT	RI 7X11-FT LOW	RI 7X11-FT	RI 7X11-FT	PT 7X11-FT LOW	UNIV. OF WASH. LOW SPEED	LOCKHEED (GA)	UNIV. OF WASH. LOW SPEED	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW	LARC V/STOL	UNIV. OF WASH.	UNIV. OF WASH.	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW SPEED	UNIV. OF WASH. LOW SPEED	
RUNS	189	348	66	205	7.1	86	331	448	24	001	100	194	4	127	536	379	6	122	113	261	
HOURS EST/CHG	100/114	100/ 72	40/ 55	80/ 71	100/139	120/195	80/174	100/240	48/ 40	64/120	120/ 80	120/13:1	40/ 47	09 /09	200/324	240/239	75/110	120/210	60/83	152/152	
NG COMPL	05+17+73	06+04+73	06+25+73	1 09+01*73	09+14+73	10*23*73	11+09+73	12+06+73	04+26+74	06+07+74	1 06*10*74	08*30*74	09*10*74	10+23+74	09+12+75	11*01*75	11*26*75	01+13+76	04+15+76	07+02*76	
TESTING SCHED. CO	5* 8*73 - 05*17*73	5*21*73 - 06*04*73	6*21*73 - 06*25*73	8*28*73 - 09+01*73	9* 4*73 - 09*14*73	10* 5*73 - 10*23*73	10*26*73 - 11*09*73	11*13*73 - 12+06*73	4+24+74 - 04+26+74	5*28*74 -	6* 4*74 - 06*10*74	8*15*74 - 08*30*74	9* 6*74 - 09	10*14*74 - 10*23*74	8*18*75 - 09*12*75	10*16*75 - 11*01*75	11*19*75 - 11	12+15+75 - 01	3+29+76 - 04	6*21*76 - 07	
TEST NO.	DA.18	04214	0A218	0469	DA7.1C	DA62A	, 0A86	DA62B	DA118	CA4	CA2 - 1	CA3	DA 123	0A 124	CA8	CA 15A	CA.15B	0A 172			
SCALE	. 040	0405	0405	0405	.0405	.0405	.0405	.0405	.0405	.0405	0405	10405	0405	.0405	0405	0405	0405	0405	7040	.0405	
MODEL REF.	2.7420B	3/ 1398	3/1395 3/1398 W/CANS	3/1398	3/139B	4/140A.B	4/140A.B				4/140A B/C-54	4/140A B/747	4/146A B (ALT)	4/140A.B	4/140A B/747	4/1400 B/747	4/140A B/747	4/140A:6/12/	4/140A, 5(ALI)	4/140A,B/747	
								A	-16	4	-			e -5=	• ••••••	Pro 1 1 - 1 - 1 - 1			******		

MODEL ID : 44

Alig 01, 1984

PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL Ref.	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	FACILITY WIND TUNNEL	ON	N	DOCUMENT STATUS
140C/REMOTE ELE	.0150	LA62	5+14*75 - 05*23*75	40/80	301	LARC 8-FT TRANSONIC PRESSURE	717	2264	PUBL I SHED
140C/REMOTE ELE	.0450	LA67	6*20*75 - 07*02*75	40/120	131	LTV 4X4-FT SUPERSONIC	552	2266	PUBLISHED
140C/REMOTE ELE	.0150	LA63A	7*18*75 - 07*18*75	40/ 14	63	LARC UNITARY PLAN	1118	2270	PUBL I SHED
14OC/REMOTE ELE	.0450	LA70	7+28+75 - 08+06+75	38/ 60	299	CALSPAN 8-FT TRANSONIC	103	2269	PUBL I SHED
140C/REMOTE ELE	.0150	LAG 1A	8+25+75 - 09+10+75	40/ 40	138	LARC LOW TURBULANCE PRESSURE	219	2278	CANCEL
14OC/REMOTE ELE	.0150	LA63B	9*12*75 - 09*17*75	40/ 38	191	LARC UNITARY PLAN	1151	2279	PUBL I SHED
140C/REMOTE ELE	.0150	LAGG	10*20*75 - 10*24*75	80/ 80	56	ARC 12-FT PRESSURE	135	2281	PUBL I SHED
W140C/REMOTE ELE	.0150	LA618	1* 5*76 - 01*14*76	40/ 96	81	LARC LOW TURBULANCE PRESSURE	228	2300	PUBL I SHED
1,40c/REMOTE ELE	.0150	LA75.	2*25*76 - 03*06*76	48/128	141	LTV 4X4-FT SUPERSONIC	573	2305	PUBLISHED
140C/REMOTE ELE	.0150	LA"5	4* 6*76 - 04*16*76	06 /06	283	LARC UNITARY PLAN	1173	2318	PUBL I SHED
140C/REMOTE ELE	.0150	LA77	7* 9*76 - 07*24*76	120/151	521	ARC 11-FT TRANSONIC	200	2344	PUBLISHED
14OC/REMOTE ELE	.0150	LA91	9* 3*76 - 09*15*76	80/104	214	LARC 8-FT 1RANSONIC PRESSURE	758	2352	PUBL İ SHED
140C/REMOTE ELE	.0150	LA 101	5*18*77 - 05*24*77	55/ 55	200	LARC UNITARY PLAN	1194	2390	PUBL I SHED
140C SILTS	.0150	LA111	8+ 3+77 - 08+05+77	95/ 40	95	LARC 8-FT TRANSONIC PRESSURE	786	2395	PUBLISHED
140C SILTS	.0150	LA110	8* 8*77 - 08*10*77	30/ 30	9	LARC UNITARY PLAN	1212	2396	PUBLISHED
140C SILTS	.0150	LA114	8*23*77 - 08*31*77	30/ 60	70	LARC UNITARY PLAN	1217	2399	PUBL I SHED
140C/REMOTE ELE	.0150	LA115	2* 1*78 - 02*06*78	.45/ 45	175	LARC 8-FT TRANSONIC PRESSURE	803	2409	PUBL I SHED

PHASE C/D WIND TUNNEL TESTING PER MODEL

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	MODEL Ref.	L SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	WIND TUNNEL FACILITY	ON		DOCUMENT STATUS
		. !		0*20*74 - 09*30*74	144/181	520	THE BOEING CO TRANSONIC	1431	2211	PUBL I SHED
	140A,B/747	0300			115/115	288	THE BOEING CO TRANSONIC	1431	2217	PUBL I SHED
	140A.B/747			2+40+75 - 03+20+75	140/160	285	ARC 11-FT TRANSONIC	094	2245	PUBL I SHED
	140A.B (MOB.)			3+10+13 (3 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 =	24/30	49	ARC 9X7-FT SUPERSONIC	094	2245	PUBL I SHED
	140A,B (MOD.)	•		3+26+75 - 03+31+75	20/ 22	45	ARC 8X7-FT SUPERSONIC	094	2245	PUBL I SHED
	140A, B. (MUD.)			5*20*75 - 06*06*75	200/265	. 603	THE BOEING CO TRANSONIC	1472	2262	PUBLISHED
	140A.B/747	0050		6* 9*75 - 06*16*75	95/ 95	165	THE BOEING CO TRANSONIC	1,474		UNASSIGNED
	140A.B/747			6*23*75 - 07*08*75	160/152	. 20	ARC 12-FT PRESSURE	810	2265	PUBL I SHED
A∸	140A.B/(ALT)		UATOS	37+75-0460- 32+22-0	72/ 84	. 99	TEXAS A+M 7X10-FT LOW SPEED	7515		UNASSIGNED
1.66	140A.B/747	. 0300		5.20.00 (3.00.00)	40/ 64	. G	THE BOEING CO TRANSONIC	1490	2341	PUBLISHED
	140A.B/747	00EÚ .		9429475 10402475	24/ 33	192	THE BOEING CO TRANSONIC	1493	2341	PUBLISHED
	140A.B/747	0300		11.00-11 - C/*5 +11	160/236		THE BOEING CO TRANSONIC	1496	2307	PUBL 1 SHED
	140A.B/747	0300		11*13*75 - 12*22*15	007/001		ARC 12-FT PRESSURE	180	2304	PUBL I SHED
	140C(ALT)	0000.	0A173	3*15*76 - 03*26*76	160/256		APC 14-FT TRANSONIC	121	2332	PUBL I SHED
	140C(ALT)/747			6* 8*76 - 07*01*76	160/193		RI 7X11-FT LOW SPEED	775.	2392	PUBLISHED
	140C(ALT)	0300	0A250	7* 1*77 - 0/*0/*//	25/ 25					

DOCUMENT ND. 1 STATUS	•	2101 PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED
00 N0.		2104	2101	2101	2368
NO.		4080	4080	4080	1.12
TUNNEL		E DENSITY	E DENSITY	E DENSITY	W HYP.
MIND		VARIABL	VARIABL	VARIABL	ONT-FLO
FACILITY	•	20 LARC MACH 8 VARIABLE DENSITY	64 LARC MACH 8 VARIABLE DENSITY	26 LARC MACH 8 VARIABLE DENSITY	280 LARC 31-IN CONT-FLOW HYP.
RUNS		70	64	26	• • •
HOURS EST/CHG		20/ 20	40/ 48	20/ 16	12/180
ING	1	5*14*73 - 05*16*73	5*25*73 - 06*01*73	6*14*73 - 06+15*73	6*26*74 - 07*03*74
TESTING		5*14*73 -	5*25*73 -	6*14*73 -	6*26*74 -
TEST	į	0H42A	0H42B	0H42C	0H51-2
Z A C		0900	0900	0900	0900
MODEL		3/139,139A	3/139, 139A	3/1394, W/CAN	3/139B

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MODEL REF.	SCALE	TEST	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	WIND TUNNEL FACILITY	Q	DO No.	DOCUMENT STATUS
4%140A.B	0300	IA14A	9* 4*73 - 09*13*73	130/151	149	ARC 11-FT TRANSONIC	716	2084	PUBLISHED
4/140A.B	.0300	0A22A	9*12*73 - 09*14*73	20/ 21	24	ARC 11-FT TRANSONIC	716	2130	PUBL I SHED
4/140A.B	.0300	IA14B	9*14*73 - 09*19*73	48/ 41	99	ARC 9X7-FT SUPERSONIC	716	2129	PUBLISHED
4/140A,B	0300	0A22B	9*19*73 - 09*20*73	40/ 31	30	ARC 9X7-FT SUPERSONIC	716	2131	PUBLISHED
4/140A.B	.0300	0A53B	11*12*73 - 11*16*73	60/160	103	ARC 9X7-FT SUPERSONIC	747	2178	PUBLISHED
4/140A.B	0300	OASSÅ	11*19+73 - 11*27*73	128/128	267	ARC 11-FT TRANSONIC	747	2128	PUBLISHED
4/140A.B	.0300	DA53C	11*28*73 - 12*06*73	60/129	159	ARC 8X7-FT SUPERSONIC	747	2185	PUBLISHED
4/140A.B	.0300	0A37	1* 7*74 - 01*25*74	80/103	112	RI 7X11-FT LOW SPEED	719	2140	PUBL I SHED
A 4/140A B (MOD.)	.0300	1A81A	7*26*74 - 08*27*74	84/184	66	ARC 11-FT TRANSONIC	019	2169	PUBL I SHED
89 4/140A,B (MOD)	.0300	IA818	8* 9*74 - 08*22*74	60/208	88	ARC 9X7-FT SUPERSONIC	019	2194	PUBLISHED
4/140A.B (MOD)	. 0300	0A 155	2*10*75 - 03*07*75	80/152	205	LARC V/STOL	4. 4.	2237	IN PRDCESS
4/140A,B (MOD)	.0300	CA 148	5* 5*75 - 05*17*75	220/264	474	ARC 11-FT TRANSONIC	073	2254	PUBLISHED
4/140A.B/747	. 0300	CA9	6*25*75 - 07*14*75	320/302	82	THE BOEING CO TRANSONIC	1477	2268	PUBL I SHED
4/140A,B (MOD)	0300	IA 135A	3* 2*76 - 03*23*76	120/146	132	ARÇ 11-FT TRANSONIC	144	2306	PUBLISHED
4/140A.B (MGD)	.0300	IA 135B	3* 5*76 - 03*23*76	60/100	20	ARC 9X7-FT SUPERSONIC	144	2306	PUBL I SHED
4/140A.B (MOD)	.0300	1A135C	3+12+76 - 03+23+76	20/ 40	ហ	ARC 8X7-FT SUPERSONIC	144	2306	PUBL I SHED
140A.B (ALT)	.0300	0A 1.75	6*28*76 - 07*09*76	160/240	290	ARC 11-FT TRANSONIC	187	2333	PUBLISHED
5/140C	.0300	0A 149B	2* 2*77 - 02*07*77	40/168	201	ARC 9X7-FT SUPERSONIC	115	2370	PUBLISHED
5/140C	0300	0A149C	2*16*77 - 02*18*77	40/144	25	ARC 8X7-FT SUPERSONIC	1 5	2370	PUBL I SHED
5/140C	.0300	DA 149A	2*24*77 - 03*04*77	160/144	390	ARC 11-FT TRANSONIC	115	2376	PUBL I SHED
5/140C	.0300	IA105A	9* 2*77 - 11*20*77	290/281	885	AEDC 16-FT TRANSONIC	470	2398	PUBLISHED
5/1400	.0300	IA 105B	1* 9*78 - 02*01*78	100/258	143	ARC 9X7-FT SUPERSONIC	242	2413	PUBL I SHED:
5/140C	.0300	0A 126B	4+17+78 - 04+30+78	120/ 97	256	ARC 9X7-FT SUPERSONIC	289	2424	PUBLISHED
5/1400	.0300	0A 126A	5* 1*78 - 05*30*78	240/131	304	ARC 11-FT TRANSONIC	289	2424	PWBLISHED
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							AFAC 46-FT TRANSONIC	507	2434	PUBL I SHED
VEH102	0300	0A 129	7* 7*78 -	- 07*15*78	40/ 64		AEDC 10 10 ET TDANSONIC	517	2439	PUBL I SHED
5/1400	0000	IA 182	9+19+78 -	- 09*20*78	12/ 24		AEDC 16-F1 TAMESSEE	318	2445	PUBL I SHED
5/140C	.0300	0A 146	11*28*78 -	- 12407*78	80/116		ARC ONT TO SEE SIDERSONIC	289	2424	PUBL I SHED
5/1400	.0300	0A126C	12+ 8+78 -	- 12+22+78	80/ 56		ARC 8A7-F7 SOLEMSONIC	347	2456	PUBL I SHED
5/ 140C	.0300	IA184	4* 2*79 -	- 04*13*79	24/ 40		ARC SA/-ri 30 model	411	2476	IN PROCESS
202176	0300	IA 190A	2* 7*80 -	- 02*21*80	160/168	166	ARC 11-11 INANSONIE	427	2482	PUBLISHED
3/1400	0300		4*23*80	4*23*80 - 05*02*80	120/120	700	ARC 11-FI IMMISSIONE	411	2476	IN PROCESS
36.146 2044).e	0300	IA 1.90B	5*20*80	5*20*80 - 02*21*80	120/104	294	ARC 9X/-TI SUTENSOME			

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PHASE C/D WIND TUNNEL TESTING PER MODEL

AUG 01, 1984

MODEL,	SCALE	TEST NO.	TESTING SCHED.	LNG	HOURS RUNS EST/CHG 1	* RUNS	WEND TO	TUNNEL	ON	D00 N0.	DOCUMENT STATUS
14OC(M0D)/747	.0125	CA23A	3+21+75 -	3+21+75 - 04+17+75 120/213	120/213	1	71 ARC 14-FT TRANSONIC	0	085	2243	2243 PUBLISHED
140C (MDD)/747	.0125	CA23B.	5* 1*75 -	5* 1*75 - 07*22*75 · 160/132	160/132	46	6 ARC 14-FT TRANSONIC	0	280	2275	PUBL I SHED
140C(MDD)/747	.0125		8* 4*75 -	08+15+75	94/95	131	8+ 4+75 - 08+15+75 94/ 95 131 LTV 4X4-FT SUPERSONIC	ហ	559	2273	2273 PUBLISHED

AUG 01, 1984

PHASE C/D WIND TUNNEL TESTING PER MODEL.

MODEL ID: : 49

MODEL REF.	SCALE	TES.T NO.	TESTING SCHED. : ; ' COMPL	HOURS EST/CHG	RUNS	WIND TUNNEL FACILITY	N N	DO	DOCUMENT NO. STATUS
3A/140A	.0150	0468	6+20+73 - 6+29+73	09 /09	4	RI 7-FT TRISONIC	276	2061	PUBL I SHED
3A/140A	.0150	UA23-1	7*19*73 - 07*31*73	80/ 54	23	ARC 3.5-FT HYPERSONIC	168	2071	PUBL I SHED
4/140A.B	.0150	CA20A	9+10+73 - 09+13+73	50/ 40	59	LARC UNITARY PLAN	1057	2083	PUBL I SHED
4/140A.B.	.0150	OA25	9+14+73 - 09+21+73	80/88	156	LARC B-FT TRANSONIC PRESSURE	661	2089	PUBLISHED
4/140A.B	.0450.	0487	10+15+73 - 10+23+73	80/ 80	Ó	ARC 3.5-FT HYPERSONIC	176	2115	PUBL I SHED
4/140A/B	.0150	0491	10+26+73 - 11+01+73	40/ 40	38	RI 7-FT TRISONIC	278	2116	PUBL I SHED
4/140A.B	0150	0A20C	11* 5*73 - 11*08*73	40/ 35	19	LARC UNITARY PLAN	1057	2147	PUBLISHED
¥ 4/140A.B	.0150	0A.7.7	11*27*73 12*01*73	40/ 32	124	AEDC B / HYPERSONIC	474	2134	PUBL 1 SHED
E. 4041/4	0150	0.478	~	20/ 16	56	AEDC C / HYPERSONIC	474	2134	PUBLISHED
1 4/140A.B	.0150	0A84	12+10+73 - 12+14+73	80/115	207	LTV 4X4-FT SUPERSONIC	488	2037	PUBLISHED
4/140A.B	.0150	A 1.A	2+12+74 - 02+25+74	64/ 64	28	ARC 3.5-FT HYPERSONIC	186		UNASSIGNED
4/140Á.B	.0150		2+25+74 - 03+01+74	80/ 80	38	ARC 3.5-FT HYPERSONIC	187	2162	PUBLI SHED
4/140A.B	.0150		3+13+74 - 3+21+74	120/293	150	ARC 6X6-FT SUPERSONIC	407	2159	PUBLISHED
4/140A/B	.0150		3+27+74 - 04+03+74	80/128	46	ARC 3.5-FT HYPERSONIC	190	2167	PUBLISHED
4/140A.B	.0150	AA 18	4+ 4+74 - 04+06+74	64/ 64	13	ARC 3.5-FT HYPERSONIC	186		UNASSIGNED
4/140A.B	.0150	0A208	4+ 8+74 - 34+12+74	50/ 43	30	LARC UNITARY PLAN	1097	2163	PUBLISHED
4/140A.B	.0150	IA70	5* 3*74 - 05*24*74	191/08	173	RI 7-FT TRISONIC	282	2175	PUB! I SHED
4/140A.B	.0150		6*10*74 - 06*14*74	80/80	81	LARC 8-FT TRANSONIC PRESSURE	686	2186	PUBL I SHED
4/140A.B	.0150		7* 8*74 - 07*11*74	20/ 60	79	ARC 9X7-FT SUPERSONIC	052	2189	PUBL I SHED
4/140A,B(MOD).	.0450	0A 1.15A	7*29*74 - 07*31*74	24/ 28	82	AEDC A / SUPERSONIC	71A	2198	PUBL I SHED
4/140A,B(M0D)	.0150	0A79	8+ 1+74 - 08+03+74	24/ 23	49	AEDC B / HYPERSONIC	7.1A	2196	PUBL I SHED
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AUG 01.1984

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MODEL	SCALE	TEST NO:	TESTING SCHED. COMPL.	HOURS FEST/CHG	RUNS	WIND FUNNEL FACILITY	Ö.	NO .	DOCUMENT STATUS
3A/139B	0900	DH14	10+17+73 - 10+18+73	91 /91	53	LARC MACH 8 VARIABLE DENSITY	648	2117	2117 PUBLISHED
34/1398	0900	0H45	11* 2*73 - 11*09*73	40/ 46	22	LARC 20-IN FREDN	121	2109	PUBLISHED
2A/089B	0900	1H19A	12-14-73 - 12-26-73	40/ 40	22	LARC HYPERSONIC NITROGEN	28	2157	PUBL I SHED
2A/0898	0900	IH198	12-27-73 - 01-08-74	20/ 40	22	LARC HYPERSONIC NITROGEN	28	2157	PUBL I SHED
2A/089B	0900	H28-2	5*20*74 - 05*24*74	30/38	15	ARC B.5-FT HYPERSONIC	195	2180	PUBLISHED
2A/089B	0900	IH28-1	5+20+74 - 05+24+74	80/ 50	24	ARC 3.5-FT HYPERSONIC	195	2180	PUBL I SHED
5/1400	0900		12* 1*77 - 01*23*78	160/160	0	ARC 3.5-FT HYPERSONIC	233	2407	PUBL 1 SHED

MODEL	SCALE	TEST NO.	TESTING SCHED, COMPL	G COMPL	HOURS RUNS EST/CHG	RUNS	WIND TUNNEL FACILITY	JNNEL	NO.	. DN	DOCUMENT STATUS
	.0100	0A81	11*28*73 - 12*28*73 104/ 94 48	2+28+73	104/94	48			489	2152	2152 PUBLISHED
	0100	DA 1-13	8+10+74 - 10+04+74	0+04+74	24/336	108	CALSPAN HYPERSONIC SHOCK		184-	2234	PUBLISHED
	.0100	DA93	11+18+74 - 11+23+74	1+23+74	80/152	1 .	CALSPAN HYPERSONIC SHOCK		737	2238	PUBL 1 SHED
	.0100	DA 160	2+ 5+75 - 02	75 - 02+08+75	12/ 12	4	12/ 12 14 AEDC F / HYPERSONIC		28A	2247	2247 PUBLISHED

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PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL 10: 52

AUG 01, 1984

MODEL	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS R	RUNS	WIND TUNNEL FACILITY	NO N	0N	DOCUMENT STATUS.
0000		18618	2*26*74 - 02*26*74	8 /8	ō	AEDC A / SUPERSONIC	21AA	2226	PUBLISHED
3/ 139.0838	3 -6		2. 6.74 - 03+15+74	40/ 45	166	AEDC B / HYPERSONIC	422	2 156	PUBL I SHED
3/1398	9 6		3+48+74 - 03+19+74	. 80 : 80	ਦ	AEDC B / HVPERSONIC	422	2230	PUBL I SHED
3/1398	0010	1A1/18	4- 6-74 - 04-12-74	60/ 64	26	ARC 3.5-FT HYPERSONIC	191	2160	PUBLISHED
3/1398	.0100	BLVI		24/ 23	06	AEDC A / SUPERSONIC	60A	2192	PUBL I SHED
3/1398	0100	IAB7	1 - 18 - 18 - 19 - 20 - 7 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	36/33	:	AEDC A / SUPERSONIC	ASA	2242	PUBLISHED
3/1398	9480	14141 14144	8+18+75 - 08+22+75	42/ 56	ō	AEDC B / HYPERSONIC	C4A	2272	PUBLISHED
3 7 7 8 A	2								

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DOCUMENT	NO. STATUS	2385 PUBLISHED	2386 PUBLISHED	
	NO.	173	177	
	ONIA	ABC 2 5-FT HYPERSONIC	CONTRACTOR	AXC
	FACILITY	400 2 5-FT	F	A Property of the Property of
	RUNS	ć		46
	HOURS RUNS EST/CHG		64/ 96	90/80
	TESTING SCHED. COMPL	-	9+12+73 - 09+20+73	10-24-73 - 10-30-73
	TEST		0H15	0H44
	1400	SCHEE	.1116	. 1-110
MODEA ID : 53	MODEL	REF.	FI AT PLATE	FLAT PLATE

	. ON	27 LARC 16-FT TRANSONIC DYNAMIC 246 2365 PUBLISHED	•
	FACILITY	LARC 1	
!	RUNS		
	HOURS RUNS	120/104	
	TESTING SCHED. COMPL	47.00.00	9 - 2 - 74 - 03 - 17 - 6
	TEST		980
	1 4 0	SCALE	1400 056
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MODEL		
1300		REF.	

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DOCUMENT NO. STATUS	2363 PUBLISHED	UNASS I GNED	
	246	258	
WIND TUNNEL	TRANSONIC DYNAMIC	CONTRACT FT CA CONTRACT CONTRACT FT CA CONTRACT CONTRACT FT CA CONTRACT CON	
FACILITY	LARC 16-FT	H (LAKC 16-FI
RUNS	œ	}	ģ
HOURS RUNS EST/CHG	120/120	120/ 120	80/ 58
TESTING SCHED. COMPL		8*12*74 - 08*30*/4 120/120	4* 7*75 - 04*10*75
TEST NO.		057	0822
SCALE		1400	. 1400 0522
MODEL		4/140B	4/140A.B

DOCUMENT STATUS	PUBLISHED	PUBL I SHED	UNASSIGNED	PUB1. I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED
NO.	2366	2263		2455	2464	2467	2490
Q	83A	8 [†] A	217	865	B67	245	69
TUNNEL		, <u></u>					
WIND '	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	ARC 3.5-FT HYPERSONIC	AEDC B / HYPERSONIC	AEDC A / SUPERSONIC	ARC 3.5-FT HYPERSONIC	AIDC B / HYPERSONIC
FACILITY	AEDC B	AEDC B	ARC 3.5	AEDC B	AEDC A	ARC 3.5	A_DC B
RUNS	153	0	57	. 0	0	0	0
HOURS EST/CHG	24/ 23	12/ 12	192/218	8/ 13	12/ 12	100/100	48/ 40
COMPL COMPL	1*30*75 - 02*03*75	6* 3*75 - 06*12*75	4*26*76 - 05*26*76	10*25*78 - 11*29*78	5* 1*79 - 06*01*79	10*15*79 - 11*01*79	10*27*80 - 11*24*80
TEST SCHED.	1+30+75	6* 3*75	4*26*76 -	10*25*78	5* 1*79 -	10*15*79	10*27*80 -
TEST NO.	0H25B	0H74	IH42		 IH102-2	1H103-2	0H109
SCALE	.0175	.0175	.0175	0175	.0175	0175	.0475
MODEL							
RE F.	5/1400	5/1400	5/1400	5/140C	5/1400	5/1400	5/140C

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MODEL ID : 57

						I SIMINITE		DOCUMENT
MODEL		TEST	TESTING COMPL	HOURS RI EST/CHG	RUNS FACILITY	VIND CONTRA	ON	ND. STATUS
REF	SCALE	Š		-	- 44 204	ADC 44-FT TRANSONIC	150	2286 PUBLISHED
VEH 101 (ADS.)	1000		11+11+75 - 11+21+75 12	0/11¢	0 142 ARC 14	-FT TRANSONIC	312	2329 PUBLISHED
VEH 102 (ADS)	. 1000	DA224	2*23*76 - 03*24*76	80/304	25 LANC 35	or 7x11-FT LOW SPEED	757	2322 PUBLISHED
VEH 102 (ADS)	1000	0A228	5*29*76 - 05*01*76	16/ 23	7			

PHASE C/D WIND TUNNEL TESTING PER MODEL

AUG 01, 1984

MODEL ID : 58

DOCUMENT NO. j 'STATUS	2393 PUBLISHED	2429 PUBLISHED	2448 PUBLISHED	2461 PUBLISHED
NO.	228	239	241	244
TUNNEL	INIC	NIC	NIC	NIC
FACILITY	ARC 3.5-FT HYPERSONIC	O ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	O ARC 3.5-FT HYPERSONIC
RUNS	62	0	0	0
HOWRS RUNS EST/CHG	80/118	09 /09	500/632	240/240
TESTING COMPL	7*14*77 - 07*27*77	7*15*78 - 07*24*78	12*26*78 - 02*16*79	5* 1*79 - 06*00*79
TES SCHED.	7+14+77	7*15*78	12+26+78	5* 1*79
TEST NO.	I IH51A	THSTB	IH51C	1H51D
SCALE	1.0000	1.0000	1.0000	1.0000
MOBEL.	FLAT PLATE	FLAT PLATE	FLAT PLATE	FLAT PLATE

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PHASE C/D WIND TUNNEL TESTING PER MODEL

AUG 01.1984

MODEL ID: 59

DOCUMENT ND. STATUS	2319 PUBLISHED
NO.	184
WIND TUNNEL	60 CALSPAN HYPERSONIC SHOCK
FACILITY	CALSPAN HY
RUNS	
HOURS 1 EST/CHG	120/250
TESTING SCHED. COMPL	12*17*75 - 02*23*76 120/250
TEST	1H43
SCALE	.0100
MODEL	
REF.	5/1400

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POOR QUALITY PUBL I SHED PUBLISHED PUBL I SHED PUBL I SHED PUBLISHED PUBLISHED PUB1: I SHED PUBL I SHED PUBLISHED PUBL 1 SHED PUBL I SHED PUBL I SHED PUBLISHED PUBLI SHED PUBL I SHED PUBLISHED PUBLISHED PUBL I SHED PUBL I SHED PUBL I SHED PUBLISHED PUBL I SHED PUBL 1 SHED DOCUMENT 2495 2480 2495 2464 2468 2468 2467 2464 2388 2412 2431 2427 2454 2248 2295 2340 2340 2357 2372 2240 Š 245 250 253 246 247 **B67** RAA 234 W5 V2C **B67** B6.7 470 222 K2A Ç ĝ J7A AS. 74A 21.1 744 4 44 TUNNEL 3.5-FT HYPERSONIC ARC 3.5-FT HYPERSONIC ARC 3.5-FT HYPERSONIC 3.5-FT HYFERSONIC 3.5-FT HYPERSONIC 3.5-FT HYPERSONIC 3,5-FT HYPERSONIC ARC 3.5-FT HYPERSONIC AEDC B / HYPERSONIC AEDC A / SUPERSONIC B. / HYPERSONIC AEDC D / HYPERSONIC AEDC B / HYPERSONIC AEDC B / HYPERSONIC AEDC A / SUPERSONIC AEDC A / SUPERSONIC AEDC A / SUPERSONIC AEDC A / SUPERSONIC AEDC B / HYPERSONIC AEDC B / HYPERSONIC AFDC B / HYPERSONIC AEDC A / SUPERSONIC AEDC B / HYPERSONIC VIND FACILITY AEDC ARC ARC ARC 300 0 0 337 234 125 RUNS 80/200 20/ 16 24/180 80/80 80/80 00/100 32/32 26 24/ 24 60/116 65 72 100/623 26 24/ 12 HOURS EST/CHG 80 44 13 57 240/256 9 59 <u>+</u> 12/ /09 797 20/ /09 78/ 43/ 48/ 12/ 40/ 84/ - 11+01+79 04+17+80 01*30*81 08*01*79 06*20*79 06*28*79 64.00+79 06+01+79 04+28+78 12+08+76 01+10+77 03+10+78 04+26+78 06+23+76 07*26*76 - 01+09+75 - 05+08+75 01+09+76 03*19*76 04+21+77 1+21+74 - 11+28+74 5+21+75 COMPL TESTING 2* 7*80 11*17*80 10* 1*79 5*15*79 6+15+79 7+23+79 5+ 0+79 5* 1*79 4 * 19 * 78 4+27+78 4 * 20 * 77 1+30+78 3* 8*76 6*17*76 7*26*76 0+12+76 1+ 3+77 3*31*75 4*17*75 2*11*75 1* 8*75 SCHED. IH103-1 IH102-1 **OH84A-1** CH105B 0H103B 0H105A 0H111 DH84C 1H104 **DH110** TEST NO. 0H84B 1H41B **886H0** 1H85 **0H39B DH98A** 1H90 0H39A IH41A IH72 IH47 1H68 1H48 0175 .0175 0175 0175 0175 .0175 0175 0175 .0175 .0175 0175 0175 .0175 .0175 .0175 .0175 .0175 .0175 .0175 .0175 SCALE MODEL 5/140C 5/140C 5/140C 5/1400 5/140C 5/140C 5/1400 5/140C 5/140C 5/140C 5/140C 5/140C 5/ 140c 5/140C 5/140C 5/140C 5/140C 5/140C 5/140C 5/140C 5/140C 5/140C 5/140C REF,

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9 MODEL ID

AUG 01, 1984

PHASE C/D WIND TUNNEL TESTING PER MODEL

DOCUMENT NO. STATUS	198 2171 PUBLISHED
ON .	198
WIND TUNNEL	6*21*74 - 07*18*74 160/320 91 ARC 3.5-FT HYPERSONIC
FACILITY	ARC 3.5-FT
RUNS	91
HOURS RUNS EST/CHG	160/320
FESTING COMPL	- 07*18*74
TE SCHED.	6*21*74
TEST NO.	8EH0
SCALE	.0100
MODEL	4/140B

PHASE C/D WIND TUNNEL TESTING PER FACILITY

MODEL #62 WAS NOT BUILT.....

MODEL # 63 WAS NOT BUILT.....

PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID : 64

AUG 01, 1984

DOCUMENT ND. ND. STATUS	112 2368 PUBLISHED
WIND TUNNEL	*****
	24/ 30 50 LARC 31-IN CONT-FLOW HYP.
IS FACILITY	O LARC 31
HOURS RUNS	24/30
	4
TESTING SCHED. COMPL	6*26*74 -
TEST NO.	0H5 t-1
SCALE	.0175
MODEL	m
REF.	3/139B

								!			8	F14.000.0
MODEL REF.	SCALE	TEST NO.	SCHED.	TESTING CHED. COMPL	HOURS RUNS EST/CHG	RUNS	FACILITY		WIND TUNNEL		<u>8</u>	NO. 'STATU
5/1400	.0400	87410	7 2 27	7+ 2+76 - 11+24+76 480/ 1 0 USC VAC. CHAMBER A	480/ 1	0	USC VAC.	CHAMBER A		56-A	2371	56-A 2371 PUBLISHED
5/140C	.0400	01179	6+ 1+78	6. 1.78 08.24.78 288/288	288/288	•	JSC VAC.	O JSC VAC. CHAMBER A		61-A	2443	61-A 2443 PUBLISHED

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PHASE C/D WIND TUNNEL TESTING PER MODEL

FEB 08, 1983

DOCUMENT ND. NO. STATUS	OSEO DIBLISHED	
00 00	0100	6067
Q	•	5
WIND TUNNEL		SHOCK
QNIM		YPERSONIC
FACILITY		CAL SPAN H
RUNS		8.
HOURS RUNS		120/120
ESTING	COMPL	0+76 - 10+17+76 120/120 30 CALSPAN HYPERSONIC SHOCK
TEST	SCHED.	8+30+76
TEST	O	01166
	SCALE	.0250
MODEL		
	REF.	5/140C

MODEL, ID : 66

PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID : 67

AUG 01, 1984

MODEL Ref.	SCALE	TEST NO.	TEST SCHĘD.	TESTING	HOURS EST/CHG	RUNS	HOURS RUNS WIND TUNNEL. EST/CHG ! FACILITY !	NO.	8	DOCUMENT STATUS
4/140≥.B	.0150	IA42A	11-27-73 -	11.27.73 - 12.04.73	40/ 70	62	LARÇ UNITARY PLAN	1056	2119	2119 PUBLISHED
4/140A.B	.0150	1841	12+11+73 -	12+11+73 - 12+14+73	80/ 64	86	LARC 8-FT TRANSONIC PRESSURE	199	2118	PUBL I SHED
4/140A.B	.0150	IA42B	12-17-73 -	12+17+73 - 12+21+73	60/ 50	. 4	LARC UNITARY PLAN	1073	21.19	PURI, I SHED
4/140A.B	0450	DA 106	12+17+73 -	12+17+73 - 12+18+73	20/ 24	8	LARC 8-FT TRANSONIC PRESSURE	899	2120	PUBL I SHED
4/140A.B	.0150	IA69	1+10+74 -	1+10+74 - 01+14+75	24/ 25	. 4	RI 7-FT TRISONIC	280	2122	PUBLISHED
4/140A.B	.0150	IA.110-2	7 8 8 7 4 -	7* 8*74 - 07*11*74	30/ 20	11	30/ 20 17 ARC 9X7-FT SUPERSONIC	052	2189	2189 PUBLISHED

MODEL TO . 63

MODEL REF.	SCALE	TEST NÖ:	FESTING SCHED: COMPL	HOURS 1 EST/CHG	RUNS	WIND	TUNNEL	NO.	00 NO.	DOCUMENT STATUS
ET FORETANK	.0700	1A137	4+26+76 - 05+03+76	40/ 56	6	ARC 14-FT TRANSONIC		143	2316	2316 PUBLISHED
ET FORETANK	.070.	1 A 13 1 B	11+ 3+78 - 11+09+78	48/ 40	0	ARC 9X7-FT SUPERSONIC		283	2462	PUBL I SHED
ET FORETANK	.0070	14132	11+27+78 - 12+14+78	96 /96	0	AEDC 16-FT TRANSONIC		505	2449	PUBL I SHED
ET FORETANK	.0700	IA131C	3+ 5 79 - 03+11+79	48/ 40	Ó	ARC 8X7-FT SUPERSONIC		283	2462	PUBL I SHED
ET FORETANK	.0700	1A 180	3+26+79 - 03+30+79	48/ 53	37	LARC UNITARY PLAN		1267	2457	PUBLISHED
			-							

AUG 01,1984

PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID : 69

DOCUMENT NO. STATUS	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED
NO.	2271	227.1	2298	2309	2298
NO.	1147	1132	227	740	238
TUNNEL			PRESSURE	PRESSURE	PRESSURE
VI ND	Y PLAN	Y PLAN	RBULANCE	RANSONIC	RBULANCE
FACILITY	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC LOW TURBULANCE PRESSURE	LARC B-FT TRANSONIC PRESSURE	LARC LOW TURBULANCE PRESSURE
RUNS	30	15	•	30	y
HOURS R EST/CHG	48/ 48	48/64	82/82	12/ 12	16/ 16
TESTING SCHED. COMPL	7*21*75 - 07*31*75	10*17*75 - 10*22*75	12+18+75 - 12+30+75	3*26*76 - 03*31*76	12+10+76 - 12+13+75
TEST NO.	LA7.18	LA71A		LA72.	LA73B
SCALE	0210.	.0450	.0150	.0150	.0150
MODEL Ref.	4/140A.B	4/140A.B	4/140A.B	4/140A.B	4/140A.B

A-191

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PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID: 70

AUG 01, 1984

2320 PUBLISHED	2327 PUBLISHED	2384 PUBLISHED	1 2498 PUBLISHED	3 2498 PUBLISHED	5 2498 PUBLISHED	3 2498 PUBLISHED	UNASSIGNED
DBA	59A	TOA	1311	1358	1315	1319	352
AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 16-FT TRANSONIC
200	750	272	268	6	27	0	0
12/ 43	52/ 49	52/ 52	240/228	240/132	240/140	240/160	80/ 32
3+26+76 - 04+09+76	5+ 3+76 - 05+08+76	4*27*77 - 05*03*77	10+13+80 - 11+07+80	11* 8*80 - 11*21*80	11+24+80 - 12+15-80	1+12+81 - 02+02+81	2+ 2+81 - 02+09+81
0A 169	I A 2 2.	14148	0A255A	DA255B	0A255C	0A255D	0A256
.0125	.0125	.0125	0125	0.125	0125	.0125	.0125
2/1405	5/1406	5/11606	5) 1550 00100	20170	201.00	DV 102	701 A=1
	0125 DA169 3+26+76 - 04+09+76 12/43 200 AEDC B / HYPERSONIC D8A 2320	.0125 DA169 3+26*76 - 04+09+76 12/43 200 AEDC B / HYPERSONIC D8A 2320	.0125 DA169 3*26*76 - 04*09*76 12/ 43 200 AEDC B / HYPERSONIC D8A 2320 .0125 1A22 5*3*76 - 05*08*76 52/ 49 750 AEDC B / HYPERSONIC 59A 2327 .0125 1A148 4*27*77 - 05*03*77 52/ 52 272 AEDC B / HYPERSONIC TOA 2384	. 0125 0A169 3.26.76 - 04.09.76 12/ 43 200 AEDC B / HYPERSONIC DBA 2320 . 0125 1A22 5. 3.76 - 05.08.76 52/ 49 750 AEDC B / HYPERSONIC 59A 2327 . 0125 1A148 4.27.77 - 05.03.77 52/ 52 272 AEDC B / HYPERSONIC TOA 2384 . 0125 0A255A 10.13.80 - 11.07.80 240/228 268 LARC UNITARY PLAN 1311 2498	.0125 0A169 3*26*76 - 04*09*76 12/ 43 200 AEDC B / HYPERSONIC DBA 2320 .0125 1A22 5*3*76 - 05*08*76 52/ 49 750 AEDC B / HYPERSONIC 59A 2327 .0125 1A148 4*27*77 - 05*03*77 52/ 52 272 AEDC B / HYPERSONIC TOA 2384 .0125 0A255A 10*13*80 - 11*07*89 240/132 100 LARC UNITARY PLAN 1358 2498	. 0125 DA169 3+26*76 - 04*09*76 12/ 43 200 AEDC B / HYPERSONIC DBA 2320 . 0125 JA22 5+3*76 - 05*08*76 52/ 49 750 AEDC B / HYPERSONIC 59A 2327 . 0125 JA148 4*27*77 - 05*03*77 52/ 52 272 AEDC B / HYPERSONIC TOA 2384 . 0125 DA255A 10*13*80 - 11*21*80 240/132 100 LARC UNITARY PLAN 1319 2498 . 0125 DA255B 11*8*80 - 12*15*80 240/140 27 LARC UNITARY PLAN 1315 2498	.0125 D4169 3*26*76 - 04*09*76 12/ 43 200 AEDC B / HYPERSONIC DBA 2320 .0125 1A22 5**3*76 - 05*08*76 52/ 49 750 AEDC B / HYPERSONIC 59A 2327 .0125 1A148 4*27*77 - 05*03*77 52/ 52 272 AEDC B / HYPERSONIC 10A 2384 .0125 DA255A 10**13*80 - 11*07*80 240/132 100 LARC UNITARY PLAN 1311 2498 .0125 DA255B 11**24*80 - 12*15*80 240/140 27 LARC UNITARY PLAN 1315 2498 .0125 DA255C 11**24*80 - 12*15*80 240/140 27 LARC UNITARY PLAN 1319 2498 .0125 DA255D 1**12*81 - 02*02*81 240/160 90 LARC UNITARY PLAN 1319 2498

MODEL # 71 WAS NOT BUILT.....

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PHASE C/D WIND TUNNEL TESTING PER MODEL

		ES	8		
-		TESTING SCHED. COMPL	3+ 4+74 - 03+06+74		
		TEST NO.	06Å0		
		SCALE	- 0400		
	MODEL 1D : 72	MODEL. Ref.	4/140A.B		

DOCUMENT STATUS		PUBL I SHED												3 PUBLISHED		-
NO.	2149	2206	2204	2233	2257	2315	2323	2324	2326	2377	2391	2397		2493 1. 2466	•	
NO.	110	1088	11.19	703	714	297	1152	1177	749	228	179	787	6550	1.4 6.7.7.9	A 16	
WIND TUNNEL FACILITY	LARC 31-IN CONT-FLOW HYP.	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 8-FT TRANSONIC PRESSURE	LARC 8-FT TRANSONIC PRESSURE	RI 7-FT TRISONIC	LARC UNITARY PLAN	LARC UNITARY PLAN	LARC 8-FT TRANSONIC PRESSURE	ARC 11-FT TRANSONIC	LARC 8-FT TRANSONIC PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC 20-IN HYPERSONIC (M=6)	AEDC B / HYPERSONIC	LARC 20-IN HYPERSUNIC (M-6)	AEDC A / SUPERSONIO
RUNS F1	43 1.7	27 L	47 L		146 L 98 L		92	144	255				0	137	380	o .
HOURS RI EST/CHG	25/ 40	40/ 50	40/80	80/80	96/96	30/ 30	40/ 60	80/84	96 /08	460/200	80/ 76	32/ 28	80/ 10	16/ 40	80/324	72/720
TESTING SCHED. COMPL	2* 4*74 - 03*06*74		8*19*74 - 08*23*74	8*26*74 - 09*03*74		4*24*75 - 04*29*75	9/4		27 +26 - 67 +67 +4	5*10*76 - 05*14*79	4* 6*77 - 04*15*17	5*24*77 - 06*01*77	6*22*80 - 07*01*80	2*16*81 - 02*20*81	3*12*81 - 04*20*81	2*26*82 - 04*31*82
TEST NO.	Č	DASO TA44A	18448	1A43	LA59	LA69	IA141	1A94A	IA94B	I A93	IA 144			0A259	0A257	
A	<u>-</u>	0. 0. 0. 0. 0. 0.	919.	.0.100	.0100	0010	0100	.0100	010	.0100	0100	.0100	0100	0100	0100	0100
MODEL	REF.	4/140A.B	4/140A.B	4/140A,B	4/140A.B	5/140C	5/1400	A 5/140C	2/140c	5/1400	5/140C	5/140C	5/140¢	VEH 102	VEH: 102	VEH 102

PHASE C/D WIND FUNNEL TESTING PER FACILITY

MODEL # 73 WAS NOT BUILT.....

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St	. A	~		_			<u></u>								^		. ^			-		
DOCUMENT STATUS	PUBLISHED	PUBL 1 SHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLIŚHED	PUBLISHED	UNASSIGNED	I IN PROCESS	UNASSIGNED	PUBLISHED	PUBL I SHED	UNASSIGNED	PUBLISHED	
DQ	2174	2190	2214	. 2205	2232	2227	2227	2274	2253	2335	2335	2426	2406	2437		2460		2474	2477		2477	
ND.	594	599	30	431	607	610	610	909	622	641	646	1207	649	652	653	655	657	656	6546	390	6546	
TUNNEL			GEN																(M=6)		(M=6)	
WIND Y	MSFC 14-IN TRANSDNIC	MSFC 14-IN TRANSONIC	LARC HYPERSONIC NITROGEN	LARC 22-IN HELIUM	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	LARC UNITARY PLAN	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	LARC 20-IN HYPERSONIC (M=6)	LARC 20-IN FREON	LARC 20-IN HYPERSONIC (M=6)	
FACILITY	MSFC 14	MSFC 14	LARC HY	LARC 22	MSFC 14	MSFC 14-	MSFC 14	LARC UNI	MSFC 14-	LARC 20-	LARC 20-	LARC 20-										
RUNS	270	186	32	35	109	- 29	4.	0	137	230	44	19	111	0	0	O	0	. 0	0	O .	0	
HOURS EST/CHG	256/264	80/80	60/143	88 /09	96 /08	20/ 17	16/ 16	60/142	60/ 93	64/222	80/279	40/ 40	120/120	200/294	80/80	150/160	400/ 0	200/ 0	80/148	80/80	80/200	
COMPL	- 07*21*74	- 07+09+74	- 08+05+74	- 08+29+74	- 09*26*74	- 12+17+74	- 01+09+75	- 07+06+75	- 05+22+75	- 08+03+76	- 01+28+77	- 06+10+77	02+03+78	08+01+78	06+01+78	05*16*79	05+00+79	09+01+79	02*01*80	03+01+80	05+01+80	
TESTING SCHED. CI	5+ 9+74	6.24.74	7*15*74	8*26*74				1+ 9+75	4+25+75	6+ 1+76	10* 1*76	6* 7:77	12+15+77	4+15+78	5* 1*78 -	3*14*79 -	4* 1*79 -	8* 1*79 -	1*12*80 -	2+ 1+80 -	3+18+80 -	
TEST NO.	1433	DA 108	0489		0A131			FA14	IA125-1	IA 140A	IA140B	LA124	IA181	FA25	FA26	FA27	FA29	FA28	LA141A	LA 142	LA 14 1B	
SCALE	0040	.0040	.0040	. 0040	0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	0040	.0040	.0040	.0040	.0040	.0040	
MODEL																						
REF.	5,1400	5/140C	5/1400	5/140C	5/1400	5/1400		2/140C A-1		5/140C	5/140C	5/1400	5/140C	5/ 140C	5/140C	5/140C	5/140C	5/140C	VEH: 102	VEH. 102	VEH 102	

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DOCUMENT ND. STATUS	2219 PUBLISHED	2231 PUBLISHED	2293 PUBLISHED	2346 PUBLISHED	2354 PUBLISHED	2438 PUBLISHED	
NO.	044	044	425	K1A -	P8A	246	
WIND TUNNEL	SONIC	SONIC	JNIC	ONIC	ONIC	RSONIC	Time see
W) FACILITY	ARC 8X7-FT SUPERSONIC	APC 9X7-FT SUPERSONIC	AFDC A / SUBFREGNIC	AEDC A / SUPERSONIC	AFDC A / SUPERSONIC	ARC 9X7-FT SUPERSONIC	
RUNS	240	900				. 60	
HOURS EST/CHG	700	76 /00	70/132	26/41	78/ 54	80 /09	žr (0)
TESTING SCHED. 'COMPL	-	11+11+74 - 11+15+74	1+28+75 - 02+04+75	6*23*76 - 06*29*76	8*11*76 - 08*18*76	11* 8*76 - 11*13*76	8*21*78 - 09*01*78
TEST NO.	-	1A82C	IA82B	IA40	1A142	1A143	IA 138
SGALE	•	.0400	.0100	.0100	.0100	.0100	.0100
MODEL	, KET .	5/140C	5/140C	5/140C	5/140C	5/1400	5/140C

PHASE C/D WIND TUNNEL TESTING PER MODEL

DOCUMENT STATUS	2261 PUBLISHED	PUBL I SHED	2302 PUBLISHED	
OO .	2261	2499	2302	
O	462	473	479	
TUNNEL				
WIND	ARC 40X80-FT SUBSONIC	ARC 40X80-FT SUBSONIC	ARC 40X80-FT SUBSONIC	
FACILITY	ARC 40X8C	ARC 40X80	ARC 40X8C	
RUNS	190	22	165	
HOURS F	240/272 190	. 80/ 80	240/26	•
TESTING .	5*27*75 - 06*14*75	11+28+75 - 12+01+75	2* 2*76 - 02*27*76	-
TE SCHED.	5+27+75	11+28+75	2* 2*76	
TEST.		00.00	GA 1:74	
SCALE	0036		0005	
MODEL Ref.	(F. 1877)	DV 107(AET)	OV101(ALT)	

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PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID : 77

AUG 01, 1984

Şf	. 6	_	•
DOCUMENT	2227 PUBLISHED	PUBL I SHED	2253 PUBLISHED
00 . ON	2227	2227	2253
Ŏ.	610	610	622
TUNNEL			
QNIN	MSFC 14-IN TRANSONIC	TRANSONIC	MSFC 14-IN TRANSONIC
FACILITY	MSFC 14-IN	MSFC 14-IN TRANSONIC	MSFC 14-IN
RUNS	40	06	20
HOURS RUNS EST/CHG	20/ 40	40/ 64	40/ 30
STING	12*11*74 - 12*17*74	- 01*09*75	4+25+75 - 05+22+75
TESI SCHED.		12*19*74	4+25+75
TEST NO.	.0040 IA71A-1	.0040 IA718-1	IA125-2
SCALE	.0040	0040	.0040
MODEL	.e		7415)
REF.	5/1400	5/140C	5/140C(74TS)

MODEL # 78 WAS NOT BUILT.....

A-200

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MODEL	

REF.	MODEL	SCALE	FEST NO.	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	FACILITY	<u>≯</u>	3
5/140C		.0550	0250	10+22*75 - 10*30*75 120/120 14 LARC 16-FT TRAN	120/120	4	LARC 1	6-FT	IRAN

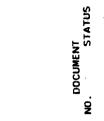












PHASE C/D WIND TUNNEL TESTING FER MODEL

NT STATUS		UNASSIGNED	UNASSIGNED		
DOCUMENT NO.		ANO	NO.		
Ç		300	308		
TUNNEL		IC DYNAMIC	IC DYNAMIC		
WIND		TRANSON:	TRANSON		
	FACILITY i	LARC 16-FT TRANSONIC DYNAMIC	ARC 16-FT TRANSONIC DYNAMIC		
RUNS		0	Ć	>	-
gilon	EST/CHG	200/120	2007	2007 120	
,	TESTING SCHED. COMPL		5* 8*78 - 05*26*78 -	9*18*78 - 10*08*78 2	
	TEST NO.	~	0521	IS:10	
	SCALE		.0550	.0550	-
MODEL ID : 80	MODEL		5/140C FLUTTER .0550	5/140C FLUTTER	1

AUG 01, 1984

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DOCUMENT STATUS	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBLISHED
DOC!	2179	2179	2458	2465	2465
NO.	202	705	369	464	208
TUNNEL					
WIND -	RANSONIC	SUPERSONIC	SUPERSONIC	SUPERSONIC	SUPERSONIC
FACILITY	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 9X7-FT SUPERSONIC	ARC 9X7-FT SUPERSONIC	ARC 9X7-FT SUPERSONIC
RUNS	96	39	0	0	0
HOURS EST/CHG	60/156	60/120	60/ 40	80/ 64	8 /8
TESTING SCHED. 1.COMPL	7*11*74 07*18*74	7*19*74 - 07*29*74	5* 7*79 - 05*11*79	2*23*81 - 03*02*81	8*26*81 - 08*27*81
TEST NO.	058A	0588	0537	0555	1 0557
SCALE	1.0000	1.0000	1.0000	1.0000	1.0000
MODEL REF.	HRSI TILE	HRSI TILE	HRSI TILE	TIME	311.

PHASE C/D WIND TUNNEL TESTING PER MODEL

AUG 01, 1984

MODEL ID : 82

MC REF.	MODEL	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	FACILITY	TUNNEL	0	00 N0 .	DOCUMENT STATUS
7/1400	•	0400	0H50A	3+29+74 - 04+11+74	8/ 16	99	AEDC B / HYPERSONIC		526	2285	PUBLISHED
3/1100	• , -	0000	0H54A	10* 4*74 - 10* 8*74	36/32	117	AEDC B / HYPERSONIC	-	82A	2301	PUBL I SHED
3041 %6	••	9	DH548	7*21*75 - 07*25*75	48/52	124	AEDC B / HYPERSONIC		82A	2342	PUBLISHED
3/1400	•	9	OH54C	8*26*75 - 09*02*75	48/ 48	120	AEDC B / HYPERSONIC		82A	2342	PUBL I SHED
3/1400	•	040	0475	9* 2*75 - 09*03*75	14/ 13	4	AEDC B / HYPERSONIC		E3A	2303	PUBL 1 SHED
3/ 1400		0400		11+14+75 - 12+11+75	84/87	246	AEDC B / HYPERSONIC		E9A	2321	PUBL I SHED
5/140C	• •	0400		4*14*76 - 04*23*76	40/ 80	23	ARC 3.5-FT HYPERSONIC		216	2317	PUBL I SHED

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1999年,1999年,1999年,1998年

DOCUMENT ND. STATUS	2358 PUBLISHED	2356 PUBLISHED	2317 PUBLISHED	2388 PUBLISHED	2420 PUBLISHED	2464 PUBLISHED
ž	83	8	8	23	7	75
NO.	58A	B7A	216	R4A	V2C	B67
TUNNEL						
WIND	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	ARC 3.5-FT HYPERSONIC	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	AEDC A / SUPERSONIC
RUNS	220	139	33	16	72	0
HOURS RI EST/CHG	36/27	12/ 12	40/ 40	5/ 9	12/ 8	10/ 10
TESTING SCHED. COMPL	7*12*74 - 07*17*74	5*12*75 - 05*12*75	4+ 7+76 - 04*13*76	4*20*77 - 04*21*77	2*20*78 - 02*21*78	5* 1*79 - 06*01*79
TEST. NO.	0H508	0940	0H53A	OH84A-2	 0H103A	IH102-3
SCALE	.0490	.0400	.0400	.0400	.0400	.0400
MODEL Ref.	5/1400	5/140C	5/1400	5/1400	VEH. 5 F'800Y	5/1400

PHASE C/D WIND TUNNEL TESTING PER MODEL

DOCUMENT STATUS	PUBL I SHED	PUBL I SHED	PUBLISHED	PIRI TSHED	-
NO.	2284	2284	2428	70 70	7
N O	113	113	0.45		4/0
WIND TUNNEL	ERSONIC	SONIC	011000000000000000000000000000000000000	SUPERSONIC	NSONIC
FACILITY	ARC 9X7-FT SUPERSONIC			O LERC 10X10-F1 SUPERSONIC	AEDC 16-FT TRANSONIC
RUNS	67	ų C	3	0	139
HOURS RUNS EST/CHG	09 /09			80/ 64	80/80
TESTING SCHED. COMPL	27.00.00 BY 10.00	C/-C7-01 - C/+C7+6	11+ 7+75 - 11+14+/5	4* 1*78 - 04*18*78	7* 1*80 - 07*08*80
TEST NO.		1528	152A	1141	, 0A253
SCALE		. 0350	.0350	.0350	.0350
MODEL		5/140C	5/1400	5/140C	5,140C

TUNNEL	
QNIM	SLIPERSONIC
FACILITY	ARC 9X7-FT
RUNS	4
HOURS EST/CHG	16/21
TESTING SCHED, I COMPL	11+24+75 - 11+26+75 16/ 21 45 ARC 9X7-FT SLIPERSONIC
TEST NO.	0513
 SCALE	1.0000 0513
MODEL	ILE

MODEL ID : 85.

DOCUMENT NO. STATUS

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2287 IN PROCESS 2450 PUBLISHED

166 116

ARC 2X2-FT TRANSONIC

80/ 40

1+11+76 - 01+29+76

0512

LRSI TILE LRSI TILE

REF.

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MODEL # 86 WAS NOT BUILT.....

A-208

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MODEL # 87 WAS NOT BUILT.....

A-209

PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL JD: 88

MODEL REF.	L SCALE	TEST NO.	TESTING SCHED. COTPL	HOURS F	RUNS	WIND TUNNEL FACILITY	ON	DOCUMEN ND.	DOCUMENT STATUS
•			0216274 - 09*23*74 156/136 201	156/136	201	ARC 11-FT TRANSONIC	014	2170	2170 PUBLISHED
5/1400	.0200		AC-900-44-00-24	100/144	380	ARC 11-FT TRANSONIC	023	22.12	2212 PUBLISHED
5/140C	.0200		11* 4*/4 - 15*00*/4		1.76	ARC 11-FT TRANSONIG	072	2258	PUBL I SHED
5/1400	.0200	1A72	5*19*75 - 05*31*73	207/021		IARC 7X10-FT HIGH SPEED	666	2299	PUBLISHED
140C/747	.0200		10* 6*75 - 11*0/*/3	00.00	}	STNOSUPEL TEL TRANSONIC	275	2404	PUBL I SHED
5/140C	.0200	IA1:19	10* 7*77 - 10*31*77	170/285	2				
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MASE C/D WIND TUNNEL TESTING PER MODEL

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DOCUMENT STATUS	2403 PUBLISHED	2408 PUBLISHED	PUBL I SHED	2471 PURITSHER
DO ND.	2403	2408	2444	2471
NO.	470	272	5 19	341
TUNNEL				
WIND	TRANSONIC	SUPERSONIC	TRANSONIC	TRANSONIC
VS FACILITY	96/124 :575 AEDC 16-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	AEDC 16-FT TRANSONIC	40/ 80 18 LARC 16-FT TRANSONIC
ጀ	: 575	177	40	18
HOURS F EST/CHG	96/124		12/ 12	40/ 80
ESTING COMPL	7 - 11+10+77	7 - 01*06+78	11*15*78 - 11*16*78 12/ 12	10+11+79 - 11+01+79
TES1 SCHED.	10+28+77	12*16*77 -	11*15*78	10+11+79
TEST NO.	IA156A	IA 1:56B	IA 183	LA 132
SCALE	.0200	. 6200	.0200.	.0200
MODEL				
жев.	VEH 102	VEH 102	VEH 102	VEH 102

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AUG 01, 1984

PHASE C/D WIND TUNNEL TESTING PER MODEL

DOCUMENT STATUS	2350 PUBLISHED	PUBLISHED
NO.	2350	2368
NO.	4556	112
WIND TUNNEL	100 LARC MACH 8 VARIABLE DENSITY	LARC 31-IN CONT-FLOW HYP.
FACILITY	LARC MACH 8	LARC 31-IN C
RUNS	100	5
HOURS FEST/CHG	40/ 72	12/100
TESTING SCHED. COMPL	11+12+73 - 12+07+73	6*26*74 - 07*03*74
TEST NO.	0H46	0H5:1-3
SCALE	0900	. 0060
MODEL	æ	Ď
REF.	4/140B	4/140B

MODEL ID : 90

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PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID : 91

AUG 01, 1984

DOCUMENT NO. STATUS 2410 PUBLISHED . 9 R3A TUNNEL AEDC B / HYPERSONIC FACILITY RUNS 255 48/36 12* 6*77 - 12*10*77 TESTING SCHED. COMPL TEST NO. 0H26 0800 SCALE MrJEL WING TIP SEAL REF.

PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID :

AUG 01, 1984

DOCUMENT STATUS	2367 PUBLISHED	PUBL I SHED	2472 PUBLISHED	
DO NO.	2367	2367	2472	
NO.	КЗА	КЗА	B65	
TUNNEL				
WIND	13/ 11 40 AEDÇ B. / HYPERSONIC	AEDC B / HYPERSONIC	ARC 11-FT TRANSONIC	•
RUNS	40	14 A	124	
HOURS R EST/CHG	13/ 11	26/ 34	36/36 124	
TESTING COMPL	5,*76 20+06+76	4+76 - 12+05+76	1*79 - 09*01*79	
TES SCHED.	10+ 6+76	12+ 4+76	8+ 1+79	
TEST NO.	0.457A	0H57B	DH400	
SCALE	.0175	.0175	.0175	
MODEL. REF.	140C	140C	140C SILTS	

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DOCUMENT STATUS		2494 PUBITSHED)
ž		2494	
NO.	306	254	
TUNNEL			
WIND TUNNEL	3 ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	-
FACILITY	ARC 3.5-FT	ARC 3.5-FT	
RUNS	28	43	
HOURS RUNS EST/CHG	120/168	200/139	
ESTING COMPL	- 04*21*78	12*15*80 - 01*15*81 200/139 43	
TES SCHED.	3*24*78	12*15*80	
TEST NO.	0H58	0H108	
SCALE	.0100	0010	
MODEL.	ELEV/ELFV SEAL	ELEV/ELEV	

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MODEL ID: 94

DOCUMENT	STATUS	2451 PUBLISHED	PUBL I SHED	
Õ	2	2451	2492	
	2	P4A	817	
TUNNEL	~			
WIND		AEDC B / HYPERSONIC	HYPERSONIC	
	FACILITY	AEDC B /	AEDC B / HYPERSONIC	
RUNS		162	0	
HOURS	EST/CHG	48/ 64 162	12/ 12	
TENT	SCHED. COMPL	3* 2*78 - 03*11*78	1* 7*81 - 01*08*81	
1661	NO.	.06Н0	.0250 0H107	
	SCALE	.0250	.0250	
	REF.	ELEV/ELEV	ELEV/ELEV	,

DOCUMENT ND. STATUS UNASSIGNED

2283 PUBLISHED

2004 PUBLISHED

Q	407	MA8	422
WIND TUNNEL	T LOW SPEED	40/ 40 40 TEXAS A+M 7X10-FT LOW SPEED	T LOW SPEED
FACILITY	80/ 80 120 LTV 15X20-FT LOW SPEED	TEXAS A+M 7	80/ 62 103 LTV 15X20-FT LOW SPEED
RUNS	120	40	103
HOURS FEST/CHG	80/80	40/ 40	80/62
TESTING	8*25*72 - 09*06*72	12*15*72 - 01*27*73	4*23*73 - 05*02*73
TESTING SCHED. COMPL	8*25*72	12+15+72	4*23*73
TEST NO.	MA 1	MA8	00 MA14
SCALE	. 0500	.0500	.0500
MODEL REF.	JSC 040A DRB.	JSC 040A BRB.	2A/089B(CAN)

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DOCUMENT NO. STATUS	PUBLISHED	2458 PUBLISHED	2458 PUBLISHED	2463 PUBLISHED	2470 PUBLISHED	2487 PUBLISHED	2487 PUBLISHED	2487 PUBLISHED		250e rest150rb	
NO.	145	369	369	380	381	436	436	436	2	900	
TUNNEL											
MIND	TRANSONIC		TRANSONIC	TRANSONIC							
FACILITY	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	SPC 11-FT TRANSONIC		ARC 11-FT TRANSUNIC	ARC 11-FT TRANSONIC	
RUNS	55	0	0	0	0	0			0	0	
HOURS EST/CHG	84/ 56	60/ 64	8/ 16	8 /8	8/8	50/50	20 / 11) ()	27/27	8 1 /8	
TESTING SCHED. COMPL	11*22*77 - 11*30*77	4*16*79 - 04*19*79	4*18*79 - 04*20*79	7* 2*79 - 07*05*79	52*E0*60 - 62*E *6	08*01*11 - 00*2***	20-51-11 - 00-71+11	11*17*80 - 01*7**81	1*27*81 - 01*29*81	6* 9*81 - 06*09*81	
TEST NO.	1831		0550	0542	0545		05518	0S51A	05510	0950	
SCALE		200				3	1.0000	1.0000	1.0000	1.0000	
MODEL REF.		LKSE FILES	HKSI FELE	EKST TIES	IPS FILES	IPS: TILES	TPS TILE	TPS TILE	TPS TILE	7 TPS TILE	L8

MODEL ID : 98

MODEL ID : 99

DOCUMENT NO. STATUS	2337 PUBLISHED	2351 PUBLISHED	2360 PUBLISHED	2360 PUBLISHED	2375 PUBLISHED	2400 PUBLISHED	2414 PUBLISHED	2421 PUBLISHED	2421 PUBLISHED	2497 IN PROCESS	UNASSIGNED	UNASSIGNED
NO.	759	764	119	119	200	042	431	282	282	594	513	513
TUNNEL			U	U .	ല	ONIC		<i>(</i>)	. ^		4.	
MIND	RI 7X11-FT LOW SPEED	RI 7X11-FF LOW SPEED	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	ARC 40X80-FT SUBSONIC	LERC 10X10-FT SUPERSONIC	AEDC 16-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	AEDC 16-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC
RUNS	204	57	184	58	32	63	281	06	96	0	o	٥
HOURS EST/CHG	10/ 37	24/ 48	91 /09	89 /09	09 /09	80/80	80/80	40/ 80	40/ 72	40/ 60	40/80	40/120
TESTING SCHED. COMPL	5+28+76 - 06+02+76	10*25*76 - 11+08+76	11* 8*76 - 21*15*76	11*15*76 - 11*22*76	1*24*77 - 01*31*77	6* 7*77 - 08*11*77	2*17*78 - 03+01+78	4*17*78 - 04+23+78	5*29*78 - 06*15*78	3*12*81 - 03*20*81	12* 2*81 - 12*16*81	4*19*82 - 04*23*82
TEST NO.	0A236	0A238	CA22:18	0A221C	0A237	0A234	0A232	0A251B	0A251C	MA34	MA35B	MA35C
SCALE	1000	1000	1000	1000	1000	000	. 1000	. 1000	1000	. 1000	. 1000	. 1000
MODEL.	ADS PROBES	ADS PROBES	ABS. PROBES	ADS PROBES	ADS PROBES	ADS PROBES	ADS PROBES	ADS PROBES	Z ADS PROBES	ADS. PROBES	ADS PROBES	ADS. PROBES

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DOCUMENT N.C. STATUS	UNASSIGNED
QN.	306
WIND TUNNEL	SONIC DYNAMIC
V FACILIȚY	O LARC 16-FT TRANSONIC DYNAMIC
RUNS	0
HOURS R EST/CHG	200/216
TESTING SCHED. COMPL	7*24*78 - 08*25*78
TEST NO.	1520
SCALE	.0460
MODĘĿ Ref.	5/140C + TOWER .0460

MODEL # 101 WAS NOT BUILT.....

MODEL # 102 WAS NOT BUILT....

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MODEL # 103 WAS NOT BUILT.....

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DOCUMENT NO. STATUS	2419 PUBLISHED
	2419
	325
TUNNEL	-
WIND	80 LARC 16-FT TRANSONIC
	80 L
HOURS RUNS EST/CHG	20/ 72
TESTING SCHED. ' COMPL	4* 8*78 - 04*28*78
TEST NO.	DA270C
SCALE	.0200
MODEL. Ref.	VEH 102

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PMASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID: 105

AUG 01, 1984

SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	FACILITY WIND TH	TUNNET	9	00 NO.	DOCUMENT STATUS
0	A209	3*21*7803*30*78	65/ 69 324	324	AEDC A / SUPERSONIC	. .	P5A	2415	2415 PUBLISHED
-	0A208	3+30+78 - 04+06+78	52/ 47	183	AEDC B / HYPERSONIC		P5A	2416	PUBL I SHED
_	JA270B	5+ 1+78 - 05+12+78	40/80	357	LARC 16-FT TRANSONIC	69	325	2419	PUBLISHED
· •	14171	6+ 5+78 - 06+22+78	180/180	35	NSWC HYPERSONIC LAB (#9)		1310	2433	PUBL I SHED
_	A 125	7+ 3+78 - 07+05+78	16/48	4	LARC UNITARY PLAN	•	1243	2432	PUBL I SHED
نـ	LA 140	12*26*79 - 01*03*80	08 /08		17 LARC 16-FT TRANSONIC	n	342	2475	2475 PUBLISHED

PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID : 106

DOCUMENT STATUS	UNASSIGNED	PUBLISHED	PUBL I SHED	PUBLISHED	UNASSIGNED	PUBLISHED	PUBL I SHED	
NO.		2478	2484	2491		2507	2507	
NO.	865	1299	742	ВНО	1394	510	510	
WIND TUNNEL	LARC 8-FT TRANSONIC PRESSURE	LARC UNITARY PLAN	LTV 4X4-FT SUPERSONIC	AEDC B / HYPERSONIC	LARC UNITARY PLAN	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	-
FACILITY	LARC 8-1	LARC UN	LTV 4X4	AEDC B ,	LARC UN	ARC 11-1	ARC 9X7	•
RUNS	0	624	198	541	001	0	0	
HDURS EST/CHG	80/88	80/144	80/138	48/128	40/ 24	80/144	40/ 96	
ING TING	12+21+79 - 01+08+80	1* 8*80 - 02*01*80	7*28*80 - 08*01*80	180 - 01+06+81	11* 2*81 - 11*04*81	82 - 04*30*82	82 - 05+21+82	
TESTING SCHED. (12+21+79	1+ 8+80	7*28*80	:1+25+80	11+ 2+81	4+19+82	5*10*82	
TEST NO.	LA 143	LA131	LA 144	0A258	MA37	MA33A	MA33B	
SCALE	.0200	0500	.0200	.0200	.0200	.0200	.0200	• •
MODEL Ref.	VEH 102	VEH 102	VEH. 102	уен 102	VEH 102	VEH 102	VEH 102	

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DOCUMENT STATUS	2473 PUBLISHED
% . D	
9	382
WIND TUNNEL	
QNIA	TRANSONIC
FACILITY	ARC 2X2-FT TRANSONIC
RUNS	Ü
HOURS RUNS EST/CHG	360/360
TESTING COMPL	10+16+79 - 11+14+79 360/360
TESTING SCHED. C	- 61+91+01
TEST NO.	OA252
SCALE	. 3300
MODEL	
ж : :	TILE

FEB 08. 1983

PHASE C/D WIND TUNNEL TESTING PER MODEL

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REF.	MODEL	SCALE	TEST NO.	TESTING SCHED. COMPL	HOURS EST/CHG	RUNS	FACILITY	AIND TE	TUNNEL	NO.	DOCUMEN NO.	DOCUMENT STATUS
VdI	***	1.0000	05468	3* 6*80 - 03*08*80	24/ 24	•	AEDC 16-FT TRANSONIC	TRANSONIC		551	2505	2505 PUBLISHED
100		0000	05460	08+00+60 - 08+0 +8	8 /8	0	AEDC 16-FT TRANSONIC	TRANSONIC		551	2505	PUBL I SHED
7 01		0000	0546E	9+15+80 - 10+20+80	8 /8	0	AEDC 16-FT TRANSONIC	TRAMSONIC		551	2505	PUBL I SHED
5 4		1.0000	0546F	10+ 1+80 - 10+02+80	8 /8	0	AEDC 16-FT TRANSONIC	TRANSONIC		551	2505	PUBL I SHED
TPS TILE	W	1.0000	0256	8*26*81 - 08*27*81	8 /8	0	AEDC 16-FT TRANSONIC	TRANSONIC		809	2489	PUBL I SHED
TPS		1.0000	0546G	12+10+81 - 12+11+81	8/ 17	0	AEDC 16-FT TRANSONIC	TRANSONIC		551	2505	PUBL I SHED

DOCIMENT	NO. STATUS	2505 PUBLISHED	2505 PUBLISHED
סמכ	O	2505	2505
	NO.	551	551
TUMMEI			
WIND TUNNEL	-	8/ 8 O AEDC 16-FT TRANSONIC	8/ 8 O AEDC 16-FT TRANSONIC
	FACILITY	NEDC 16-FT	NEDC 16-FT
SINS		0	0
HOURS	EST/CHG	8/8	8 /8
TESTING	COMPL	+80 - 03+05+80	4+17+80 - 04+18+80
	SCHED.	3+ 4+80	4+17+80
TEST	2	0S46A	0S46C
	SCALE	1.0000	1.0000
MODEL			
	REF.	TPS	TPS

PHASE C/D WIND TUNNEL TESTING PER MODEL

5	NO. NO. STATUS	UNASSIGNED
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WIND TUNNEL		
		AEDC 1-FT TRANSONIC
	FACILITY	AEDC 1-F
RUNS		0
HOURS	EST/CHG	1479 - 12*20*79 160/160 C
ING	COMPL	12+20+79
TESTING	SCHED.	- 67+1 +11
TEST	NO.	0547
	SCALE	1.0000 0547
E ODE:		
	REF.	TPS

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	DOCUMENT NO. STATIS	2483 PUBLISHED
	2	
	TUNNEL	
	ONIA	TRANSONIC
	FACILITY) AEDC 16-FT TRANSONIC
	RUNS	•
	HOURS RUNS EST/CHG	40/ 44
	TESTING SCHED. COMPL	1+28+81 - 02+04+81 40/ 44
	TEST NO.	0549
	SCALE	1.0000
MODEL ID : 111	MODEL	
MODEL	REF.	PS

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PHASE C/D WIND TUNNEL TESTING PER MODEL

MODEL ID : :12

FEB 08, 1983

DOCUMENT NO. STATUS	2378 PUBLISHED
. DOC NO.	2378
NO.	412
WIND TUNNEL	
WIND	RANSONIC
FACILITY	20+80 - 06+27+80 40/40 0 ARC 11-FT TRANSONIC
RUNS	0
HOURS RUNS EST/CHG	40/ 40
COMPL	06+27+80
TESTING SCHED. COMPL	6+20+80 -
TEST NO.	IA 191
SCALE	.5000
MPDEL. REF.	FUEL LINE

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DOCUMENT NO. STATUS

2485 PUBLISHED

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NO.	425
TUNNEL	
QNIA	TRANSONIC
FACILITY	ARC 11-FT TRANSONIO
RUNS	o ,
HOURS RUNS EST/CHG	40/113
TESTING SCHED. COMPL	4+30*81 - 06+01+81 40/113
SCHED	4 +30
TEST NO.	0820
SCALE	0000
MODEL	
REF.	TPS

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APPENDIX B DOCUMENTATION LISTING

TABLE B1. - DATAMAN LISTINGS WITH TEST, MODEL, FACILITY DATA TABLE B2. - DATAMAN DOCUMENT TITLES

APPENDIX B

TABLE B1. - DATAMAN LISTINGS WITH TEST, MODEL, FACILITY DATA

LISTING	
DATAMAN	
TESTING	
TUNNEL	
MIND WIND	
SSV	
C/D	
PHASE	

AUG 01, 1984

	Q	1002	626	4 09	404	555	556	147	680	650	545	558	554	616	1007	458	689	069	693	694	969
WIND TUNNEL	FACILITY	LARC UNITARY PLAN	LARC 8 FT TRANSONIC PRESSURE	LARC 22-IN HELIUM	LTV 15X20-FT LDW SPEED	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	ARC 3.5-FT HYPERSONIC	LARC 31-IN CONT-FLOW HYP.	ARC 6X6-FT SUPERSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	MSFC 14-IN TRANSONIC	ARC 9X7-FT SUPERSONIC	LARC UNITARY PLAN	LTV 4X4-FT SUPERSONIC	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW SPEED
	(ar)	(10)	(9)	÷.	(36)	(÷	(9)	(o •	(9)	÷	÷	÷	(2)	(9)	(6)	(3)	(2)	(01)	(2)	(2)
MODEL	REF.	PRE-ATP/001	ATP	ATP	JSC 040A DRB.	ATP	ATP	ATP	PI ATP ORBITER	ATP	ATP	ATP	PRR/SRB	PRE-ATP/001	ATP	PRE-ATP/001	ATP	ATP-MODIF	PRE-ATP/001	PRR	2A/089B
TESTING	SCHED. COMPL.	9*15*72 - 09*25*72	11*19*72 - 12*19*72	9*18*72 - 11*06*72	8*25*72 - 09*06*72	9+27+72 - 10+07+72	10*10*72 - 10*19*72	10* 2*72 - 10*17*72	10* 1*72 - 10*02*72	10*24*72 - 11*10*72	10*19*72 - 11*28*72	11+29+72 - 12+07+72	12* 9*72 - 12*23*72	10*11*72 = 11*03*72	11*27*72 - 12*08*72	11* 2*72 - 11*17*72	9*25*72 - 10*03*72	10*11*72 - 10*19*72	11* 3*72 - 11*16*72	11*16*72 - 12*06*72	12*18*72 - 01*09*73
1651	NON	MAS	LA1	MA2	MA 1	0A1	IA1A	0A4	MA4	0 A 3	IA18	MA9F	SA 1F	1.42	0A7	184	OA2	OAS	IA3	0A6	0.89
	STATUS	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED			PUBLISHED	PUBLISHED	: PUBLISHED				PUBL ISHED			PUBLISHED	l PUBLISHED	PUBLISHED	PUBLISHED	
-	Š	2001							2008	2009	2010	2011	2042	2013	2014	2045			2018	2019	2020
											A	-23	8								

L/O-100 URB. (0) PRE-ATP/O01 (7) SRB (449) 2A/089B (13) 2A/089B (13) 2A/089B (13)	- 12*07*72 L/D-100 DRB. (0) - 02*23*73 PRE-ATP/001 (7) - 03*20*73 SRB (449) - 04*13*73 2A/089B (13) - 05*24*73 2A/089B (13) - 04*30*73 2A/089B (13)	\$2*07*72 L/0-100 DRB. (0) 02*23*73 PRE-ATP/001 (7) 03*20*73 SRB 04*13*73 2A/089B (13) 05*24*73 2A/089B (13) 04*30*73 2A/089B (13)
SRB 2A/089B 2A/089B	- 03*20*73 SRB - 04*13*73 2A/089B - 05*24*73 2A/089B - 04*30*73 2A/089B	2*20*73 - 03*20*73 SRB 4* 9*73 - 04*13*73 2A/089B 5* 9*73 - 05*24*73 2A/089B
2A/089B (- 05*24*73 2A/089B (5* 9*73 - 05*24*73 2A/0898 (4*13*73 - 04*30*73 2A/0898
2A/089B	- 04+30+73 2A/089B (4*t3+73 - 04*30*73 2A/089B
990/40		, 04*0E*72
*15*73 ZA/089B (13)	- 03*15*73 2A/089B	- 03*15*73 2A/089B (
*16*72 L/0-100 DRB. (0)	- 11+16+72 L/0-100 DRB. (11+16+72 L/0-100 DRB. (
*01*73 2A/089B (17)	- 05*01*73 2A/089B (05*01*73 2A/089B (
L/0-100 0RB. (0)	- 02+23+73 L/0-100 0RB. (0)	- 02+23+73 L/0-100 DRB. (0)
+30+72 USC 049 (0) LARC 22-IN HELIUM	- 06*30*72 JSC 049 (0) - 06*01*73 TPS TILES (15)	06+30+72 JSC 049 (0) I 06+01+73 TPS TILES (15)
TPS TILES (- 06*01*73 TPS TILES (- 06*01*73 TPS TILES (
	- 06*30*72 - 06*01*73	- 06*30*72 - 06*01*73
*15*73 *16*72 *01*73 *23*73 *30*72	1 1 1 1 1	t = -tttttt -
	1 1 1 1 1	t = -t = -t = -t = -t = -1

	NO.	648	860	710) : : :	3619	206	572	305	1039		7 (8 6	1035	138	160	163	276	323	280	053	710	960	544	708	1031	141	
WIND TUNNEL	FACILITY	IARC 8-FT TRANSONIC PRESSURE	HVP CONT-EI OW HVP	CINCOLOR H. CONT.	ARC 9X/-FI SUPERSUNIC	LARC MACH B VARIABLE DENSITY	ARĆ 6X6-FT SUPĘKSONIC	MSFC 14-IN TRANSONIC	AVALET IN APPED		LARC UNITARY PLAN	MSFC 14-IN TRANSONIC	LARC LOW TURBULANCE PRESSURE	LARC UNITARY PLAN	LARC LOW TURBULANCE PRESSURE	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	RI 7-FT TRISONIC	AEDC A / SUPERSONIC	MSFC 14-IN TRANSONIC	CALSPAN 8-FT TRANSONIC	ARC BX7-FT SUPERSONIC	LARC 31-IN CONT-FLOW HYP.	LARC 26-IN TRANSONIC BLOWDOWN	RI 7X11-FT LOW SPEED	LANCE THATTARY PLAN	LANC CASTON TIPRILI ANCE PRESSURE	
	(ID)	- 6		6 '	14)	(31)	(18)	(449)	((843)	ô -	(34)	6	(42)	(18)	(18)	(42)	(49)	(32)	(34)	(14)	14)	6	(24)	(6)) (6
MODEL	REF.		L/0-10C 0KB	LARC ORB	2A/089B(MOD)	2A/089B	2A/089B	. SRB		3/139B W/CANS	089B, 139 NDSE	3/139B.W/CANS	089B., 139 NDSE.	3/1398	2A/089B	2A/089B	3/1398	3A/140A	3/1398	34/1398	2A/Ó89(MDD)	(QQM) 680/ VC	0898 139 NOSE	- ct	00007.40	ZA/ 0695	2A/089B	L/0-100 0RB.
TESTING	COMPL.	. !	- 05+14+73	- 08+16+73	- 05+07+73	- 02+05+73	- 05+04+73			- 06*25*73	- 07*06*73	6+11+73	11+02+73	- 06+15+73	- 07+06+73	- 05+25+73	- 06+18+73		1	- 1							05*18*73	31+73 - 08+03+73
	SCHED.		5+ 4+73	8+ 9+73	4+23+73	1*30*73	4+18+73	5* 3*73		6+21+73	7* 3*73	5+25+73	10+31+73	6+11+73	6+18+73	5*14*73	. 4.73	6.200.2	7. 6.72	7*18*73	7 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1		5/ mil m/	7.1.1.7	6* 4*73	7*27*73	5+14+73	7+31+73
1001	2		LA17	LA31	IA128	QH40	0.043	SASF		0A2.1B	LA8C		LA9C	0A44-2	0A 1.7 - 2	. 0A 1-18		UASB	O POPO	LATA .	1848	1,436	IA 12C	LA11	082	0A7 1A	MA7	LA23
	DALAMAN	SOLATIS TON	2C46 PUBLISHED	PUBLISHED	2048 PUBLISHED	OJEST SHED		2050 FUBLISHED		PUBL. I SHED.	PUBLISHED	PUBL I SHED	PUBL I SHED	PINEL TSHED	COST COST COST COST COST COST COST COST	Canon raise		2060 PUBLISHED			PUBLISHED	2064 PUBLISHED	5 PUBLISHED	2066 PUBLISHED	PUBLISHED	3 PUBLISHED	2069 PUBLISHED	2070 PUBLISHED
1	9	2	2046	2047	2048		6 6	2050	2052	2053	2054	2055	205	2057) -24	10	2029	2060	2061	2062	2063	2064	2065	2066	2067	2058	2069	2076

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	NO.	168	573	1043	709	3778	4060	630	169	6441	7.13	711	167	1057	7 16	171	712	578	662		1040		415	585	545	581
WIND TUNNEL		ARC 3.5-FT HYPERSONIC	MSFC 14-IN TRANSONIC	LARC UNITARY PLAN	RI 7X11-FT LOW SPEED	LARC MACH 8 VARIABLE DENSITY	LARC MACH 8 VARIABLE DENSITY	ARC 6X6-FT SUPERSONIC	ARC 3.5-FT HYPERSONIC	LARC 20-IN HYPERSONIC (M=6)	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW SPEED	ARC 3.5-FT HYPERSONIC	LARC UNITARY PLAN:	ARC 11-FT TRANSONIC	ARC 3.5-FT HYPERSONIC	RI 7X11-FT LOW SPEED	MSFC 14-IN TRANSONIC	LARC 8-FT TRANSONIC PRESSURE	LARC 8-FT TRANSONIC PRESSURE	LARC UNITARY PLAN		LARC 22-IN HELIUM	MSFC 14-IN TRANSONIC	LARC 26-IN TRANSONIC BLOWDOWN	MSFC 14-IN TRANSONIC
	(QI)	(32)	(13)	(42)	(2)	(88)	(38)	(96)	(32)	6	(5)	(43)	(42)	(49)	(47)	(56)	(43)	(449)	(454)	(49)	(o) ()		(34)	(34)	(23)	(34)
MCDEL	REF.	3/1398	2A/089B	3/1398	2A/0893	2A/089B	2A/089B	4/140A,B	3/139B	089B, 139 NOSE	2A/089B	3/139B	3/139B	4/140A,B	4/140A.B	3/139	3/139B	SRB	SRB	4/140A,B	089B, 139 NDSE	e e e e e e e e e e e e e e e e e e e	3A/139B	34/1398	2A/089B	4/140A.B
FESTING	COMPL.	07+31+73	07*09*73	7*26*73	8*17*73	03*28*73	05*10*73	09+25+73	08*03*73	09*24*73	09*17*73	09*01*73	7*18*73	09*13*73	09*13*73	09*11*73	09*14*73	10*01*73	09*28*73	09*21*73	07*13*73	any desir	08*24*73	10*16*73	08+10+73	11*09*73
Ë.	SCHED.	7*26*73 -	6*21*73 -	7*20*73 -	8* 6*73 -	3*19*73 -	5* 8*73 -	9+12+73 -	8* 1*73 -	8* 3*73 -	9*15*73 -	8*28*73 -	7*11*73 -	9*10*73 -	9* 4*73 -	9* 4*73 -	9* 4*73 -	9*13*73 -	9*24*73 -	9+14+73 -	7*10*73 -		7*30*73 - 08*24*73	10+15+73 -	8* 6*73 -	10*18*73 -
TEST	Q	0A23-2	LASTEC	0A70	0A57A	OH41A	OH4 1B	IA29	1A10	LA 15	0A57B	0A69	DA73	DAZOA	IA 14A	IH2	0A71C	SA 10F	SA2FB	0A25	LA8D		DA72	IA37B	081	0A49
DATAMAN	STATUS	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBLI SHED	PUBL I SHED	PUBL I SHED:	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED:	PUBLISHED	PUBLISHED	PUBL I SHED	• • • • •	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED
-	Q Z	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2002	2093	2094	2095
													A∸2	241	•											

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	644	715 172	352	289	175	589	717	646	1058	acq	121	118	595	422	101	716	176	2/8	667 667	1073	899	
WIND TUNNEL FACILITY	LARC MACH 8 VARIABLE DENSITY	RI 7X11-FT LOW SPEED	ARC 3.5-FT HYPERSONIC AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	LARC MACH 8 VARIABLE DENSITY	ARC 3.5-FT HYPEKSUNIC MSFC 14-IN TRANSONIC	RI 7X11-FT LOW SPEED	LARC MACH 8 VARIABLE DENSITY	LARC UNITARY PLAN	LARC 8-FT TRANSONIC PRESSURE	LARC UNITARY PLAN	LARC 20-IN FREON	LARC 20-IN FREUN	AEDC A / SUPERSONIC	LARC 31-IN CONT-FLOW HYP.	RI 7X11-FT LOW SPEED	ARC 3.5-FT HYPERSONIC	RI 7-FT TRISONIC	LARC MACH 8 VARIABLE DENSITY	LARC 8-FT TRANSUNIC FALSSONIA I ADC INITARY PLAN		
(10)	(41)	(43)	(41)	(21)	(46)	(32)	(43)	(41)	(202)	(202)	(36)	(20)	(41)	(449)	(32)	(43)	(49)	(49)	(20)	(67)	(67)	
MODEL.	90007	4/140A.B	2A/089B	3/139 3/1398	3/139A, W/CAN	3/1398	4/140A.B	2A/089B	089B, 139 NDSE	089B, 139NDSE	4/140A.B	3A/139B	2A/089B	SRB	3/139,0895						3 4/140A.B	
TESTING COMPL.		6*13*73 - 06*13*73		9*29*73 - 10*04*73	7* 9*73 - 0/*11*73 6*14*73 - 06*15*73	1	ı	3+73	9*73 :					1*28*74 - 01*30*74	ı		ı - I		10*17*73 = 11*01*73	12*11*73 - 12*14*73		:2*17*73 - 12*18*73
TEST	ON	DH13	DA62A IH15	0H4B	0H3B	UH42C IA15	1A62F	0A62B	IH17	LA 14D	LA20C	IA35	1H18	SAZ6FB	IAS7	0A85	0486	0A8 7	1640	UA41	IA42B	DA 106
DATAMAN	STATUS	PUBL I SHED:	PUBLISHED PUBLISHED	PUBL I SHED	PUBEISHED	PUBLISHED PUBLISHED		PUBLISHED	PUBLISHED	PUBL I SHED			PUBL I SHED	PUBLISHED			PUBLISHED	5 PUBLÌSHED		7 PUBLISHED		
LAQ.	2	2096	2097		2100	2101	2,103	2104	2.105	2106	-Y 2:107	8017 242	2109	2110	2112	2.113	2114	2115	2:1:16	2117	2118 2119	212

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	<u>.</u>	699	280	588	180	7422	<u>§</u>	102	747	716	716	716	48A	101	474	660	178	108	1059	724	7.19	VA35	587	422	281	583
WIND TUNNEL	FACILITY	LARC 8-FT TRANSONIC PRESSURE	RI 7-FT TRISONIC	MSFC 14-IN TRANSONIC	ARC 3.5-FT HYPERSONIC	LARC 22-IN HELIUM	LARC 31-IN CDNT-FLOW HYP.	LARC 31-IN CONT-FLOW HYP.	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	AEDC B / HYPERSONIC	LARC 31-IN CONT-FLOW HYP.	AEDC C / HYPERSONIC	LARC 31-IN CONT-FLOW HYP.	ARC 3.5-FT HYPERSONIC	LARC 31-IN CONT-FLOW HYP.	LARC UNITARY PLAN	RI 7X11-FT LOW SPEED	RI 7X11-FT LOW SPEED	AEDC F / HYPERSONIC	MSFC 14-IN TRANSONIC	AEDC A / SUPERSONIC	RI 7-FT TRISONIC	MSFC 14-IN TRANSONIC
	(ID)	6	(67)	(13)	(98)	(34)	(35)	(35)	(47)	(47)	(41)	(47)	ô	(32)	(49)	60	(22)	(32)	(26)	(43)	(41)	(29)	(459)	(32)	(13)	(459)
MODEL	REF.	140A,B	4/140A.B	2A/089B	4/140A.B	4/140A.B	3/1398	3/1398	4/140A.B	4/140A.B	4/140A.B	4/140A.B	. 8680	3/139,089B	4/140A,B	089B, 139 NOSE	3/139	3/139,089B	3/139	4/140A.B	4/140A.B	3/139	TITAN-3C	3/139,089B	2A/089B	ET .
TESTING	COMPL.	12+21+73	01*14*75	01*04*74	12+04+73	12*28*73	09+07+73	11+13*73	11*27*73	09*19*73	09 14 173	09+20+73	07+27+74	02+13+74	12+04+73	11*16*73	11+09+73	02*20*74		04+26+74	01+25+74		04 * 15 * 74	01+31+74	01*29*74	03*05*74
TES	SCHED.	12+14+73 -	1	ı	11*17*73 -	12*11*73 -	8*30*73 -	11+12+73 -	11+19+73 -	9+14+73 -	9+12+73 -	9*19*73 -	7+27+74 -	2*11*74 -	12* 3*73 -	1.1+14+73 -	10*31*73 -	2*14*74 -		4*24*74 -	1* 7*74 -	10*24*73 -	1*18*74 -	1*30*74 -	1*18*74 -	2*19*74 -
TEST	NO.	LA38A	IA69	1453	IA16	0A88	LA25	LA35	0A53A	IA14B	: 0A22A	0A22B	LA42B	IA58	0A78	LA 13C	11	0901	IH4	OA 1.18	0A37	0H11	FA4	IA61A	1.468	TA 1F
2 4 4 6 6	STATUS	ISONAC			PUBLI SHED						PUBLISHED	PUBLISHED						FUBLISHED	PUBLISHED			PUBLISHED	PUBLISHED	PINE TSHED		2145 PUBLISHED
č	Q X	ć	2122	2000	2124	2 125	2,126	2127	2128	2129	2130	2431	V 2132	-24	3	C	21.2	2	2137	00000	21.53	214	2442	7 7 6	2446	2145

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	ON.	547	1057	1.85	110	1087	1.83	489	1071	352	724	422	28	559	709	191	035	187	1097	001	596	1041	1.90	260	610	014	
WIND TUNNEL	FACILITY	LARC 26-IN TRANSONIC BLOWDOWN	LARC UNITARY PLAN	ARC 3.5-FT HYPERSONIC	LARC 31 IN CONT-FLOW HYP.	LARC UNITARY PLAN	ARC 3.5-FT HYPERSONIC	AEDC F / HYPERSONIC	LARC UNITARY PLAN	AEDC B / HYPERSONIC	RI 7X11-FT LOW SPEED	AEDC B / HYPERSONIC	LARC HYPERSONIC NITROGEN	MSFC 14-1N TRANSONIC	ARC 6X6-FT SUPERSONIC	ARC 3.5-FT HYPERSONIC	LERC 10X10-FT SUPERSONIC	ARC 3.5-FT HYPERSONIC	LARC UNITARY PLAN	CALSPAN HYPERSONIC SHOCK	MSFC 14-IN TRANSONIC	LARC UNITARY PLAN	ARC 3.5-FT HYPERSONIC	LARC 31-IN CONT-FLOW HYP.	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	
	(10)	(30)	(49)	(22)	(72)	(424)	(22)	(51)	(22)	(53)	(91)	(52)	(20)	(13)	(49)	(25)	(454)	(48)	(49)	(31)	(460)	(41)	(49)	60)	(41)	(88)	
MODEL	REF.	2A/089B	4/140A.B	3/139	4/140A,B	SRB	3/139	4/140A,B	3/139	3/139	4/140A.B	3/1398	2A/089B	2A/089B	4/140A,B	3/1398	SRB	4/140A.B	4/140A.B	3/139	ET	2A/089B	4/140A/B	F.S. TILE ARRAY	4/140A.B (MOD)	5/140C	
TESTING	COMPL.	10+24+73	- 11*08*73	- 02+06+74	03*06*74	- 03*11*74	02*11*74	12+28+73	12*14*73	12*05*73	- 03*20*74	- 03+15+74	01+08+74	- 05*27*73	. 3*21*74	- 04*12*74	- 01*16*74	- 63*01*74	- 04*12*74	- 12*13*73	- 09*23*74	- 07*13*73	04*03*74	- 12*03*73	- 08*27*74	- 09*23*74	
7.	SCHED.	10*18*73 -	11* 5*73 -	1*18*74 -	3* 4*74 -	3* 4*74 -	2* 6*74 -	11*28*73	12* 3*73 -	11*12*73 -	3*15*74	3* 6*74 -	12+27+73		3*13*74 -	4. 9.74	12* 3*73 -	2*25*7.4 -	4* 8*74 -	10*29*73	4-20*74		3*27*74 -	11*28*73	7*26*74 -	9*16*74	
TEST	YO.	154	0A20C	1H20	0890	SA25F	9H0	OA81	ÎHÎ	OH4A	DA 110	IA 1.7A	IH198	1568	0A59	IA18	SAGF	0A36	0A20B	IH21	TA2F	IH;C	0A98	LA32B	IA81A	IA19A	
DATAMAN	STATUS	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED		PUBL I SHED	PUBL I SHED	PUBLISHED	PUBLISHED	
u	Q	2146	2147	2148	2.149	2150.	2151	2.152	2153	2 !54	2155	2.156	T 2157		2:159	2,160	2:161	2:162	2,163	2.164	2165	2.166	2167	2168	2169	2170	

TUNNEL	NO.				711	594	282	194	. 6. 7.47	702	, t	. 4 4	06.						07/	610	7 O			661	
WIND TUNNEL	FACILITY	ARC. 3 5-FT HYDEDSONIC	2 100 CV 11 CV 12 CV 10 CV 1	ARC 44 TT TOTALLON	MSEC 44-TH TRANSONIC	RI 7-FT TRISONIC	LARC 22-IN HELLIM	ARC 3.5-FT HYPERSONIC	ARC 9X7-FT SUPERSONIC	ARC 9X7-FT SUPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	LARC UNITARY PLAN	LARC 8-FT TRANSONIC POFSSIDE	LARC 8-FT TRANSONIC PRESSURE	ARC 8X7-FT SUPERSONIC	TARC BUILT TRANSMIT DESCRIBE	RI 7X11-FT LOW SPEED	LARC UNITARY PLAN	ARC 9X7-FT SUPERSONIC	MSFC 14-IN TRANSONIC	LARC 31-IN CONT-FLOW HYP	AEDC A / SUPERSONIC	ARC 3.5-FT HYPERSONIC	- (
-1	(1D)	(61)		(17)	(24)	(49)	6	(36)	(47)	(81)	(20)	(466)	6	6	6	(47)	(49)	(16)	6	(67)	(74)	6	(52)	(22)	· . (
MODEL	REF	4/1408	3/139B	ATP	5/140C	4/140A.B	1398	4/140A,B	4/140A.B	HRSI TILE	2A/089B		0898-MOD NOSE	140A.B	. O898-MOD NOSE	4/140A.B	4/140A.B	4/140A,B	140A.B	4/140A,B	5/1400	140A/B URB	3/139B	4/140B	A / 404 B (400)
TESTING	SCHED. COMPL.	6*21*74 - 07*18*74	3*26*74 - 4*12*74	. 1		5* 3*74 - 05*24*74	5*13*74 - 06*07*74	5* 8*74 - 05*16*74	11*12*73 - 11*16*73	7*19*74 - 07*29*74	5*20*74 - 05*24*74	6* 3*74 - 06*15*74	7*15*74 - 07*17*74	5*24*74 - 05*31*74	4*10*74 - 04*15*74	11*28*73 - 12*06*73	6*10*74 - 06*14*74	6*17*74 - 06*25*74	4* 1*74 - 04*08*74	7* 8*74 - 07*11*74	6*24*74 - 07*09*74	7* 8*74 - 07*10*74	7*18*74 - 07*20*74	7*22*74 - 07*29*74	8* 9*74 - 08*22*74
TEST	Ö	0H38	0499	IA8	1A33	I A 7.0	LA40	OA8:3	OAS3B	0S8B	IH28-2	TA9F	LA498	LA51	LA48	OA53C	0A116	0A119A	LA39C	IA 110-2	DA 108	LA47C	IA87	0H26	IA81B
DATAMAN	STATUS	PUBL I SHED	PUBLISHED	PUBLISHED	i PUBLISHED:	PUBL I SHED.	PUBLISHED	PUBLISHED	PUBL I SHED			PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBLISHED
	ė.	2171	2172	2.173	2.174	2.1.75	2:1:76	2177	2.178	2179	2180	2181	A-7	2.183	2.184	2.185	2:186	2.187	2:188	2.189	2.190	2191	2.192		2194

۵	DATAMAN	TEST	TES	TESTING	MODEL	,	WIND TUNNEL	ğ
	STATUS	NO.	SCHED.	COMPL.	REF.	(1D)	FACILITY	
96	PUBLISHED	0A79	8* 1*74 -	08*03*74	4/140A,B(MDD)	(49)	AEDC B / HYPERSONIC	A1 7
97	PUBL I SHED	FH10		01*29*74	3/139	(22)	AEDC F / HYPERSONIC	291
86	PUBLISHED	0A115A	- 1	07*31*74	4/140A,B(MOD)	(49)	AEDC A / SUPERSONIC	71A
66	PUBLISHED	LA43B	3*18*74 -	03*27*74	4/140A,B	(°)	LARC UNITARY PLAN	1093
ò		LA44	1	04+09+74	4/140A.B	60)	LARC 8-FT TRANSONIC PRESSURE	119
. 6		CA3	1	08*30*74	4/140A,B/747	(43)	UNIV. OF WASH. LOW SPEED	1:136
05	PUBLISHED	0A 123	9* 6*74 -	09*10*74	4/140A.B (ALT)	(43)	RI 7X11-FT LOW SPEED	731
603	PUBLISHED	0A119B	1	09*06*74	4/140A.B	(91)	RI 7X11-FT LOW SPEED	730
04	PUBLISHED	IA43	- 1	09*03*74	4/14GA.B	(72)	LARC 8-FT TRANSONIC PRESSURE	693
205		0A 109	8*26*74 -	- 08*29*74	5/140C	(74)	LARC 22-IN HELIUM	431
206		1A44B.	ı	08*23*74	4/140A.B	(72)	LARC UNITARY PLAN	1119
703	PUBLISHED	SA29F	•	09*18*74	SRB FORE BODY	(467)	CALSPAN 32-IN LUDWIEG	033
18	FUBLISHED	TA3F	9*27*74 -	10*11*74	ET	(470)	MSFC 14-IN TRANSONIC	609
503	PUBLISHED	0A 124	10*14*74 -	10*23*74	4/140A.B	(43)	RI 7X11-FT LOW SPEED	736
0	PU31. I SHED	IH27	9* 7*74 -	09*25*74	TPS TILES	(15)	ARC 3.5-FT HYPERSONIC	200
÷ ÷		CAS	9*20*74 -	09*30*74	140A.B/747	(45)	THE BOEING CO TRANSONIC	1431
5	PUBI : SHED	1A80	11* 4*74 -	11*08*74	5/140C	(88)	ARC 11-FT TRANSONIC	023
213		LA54	8*14*74 -	08*19*74	140C DRB.	60	LARC 20-IN HYPERSONIC (M=6)	6456
414		0A89	7*15*74 -	08*05*74	5/140C	(74)	LARC HYPERSONIC NITROGEN	30
<u>:</u>	PUBLISHED	LA58	9*30*74 -	10+04-74	140A.B	(42)	LTV 4X4-FT SUPERSONIC	512
216	PUBLISHED	SH12F	7*29*74 -	08*07*74	SRB	60	LARC UNITARY PLAN	11.15
21.7		cado	10* 9*74 -	10*15*74	140A.B/747	(42)	THE BOEING CO TRANSONIC	1431
218		THIF	9+ 1174 -	09*09*74	ET	-6	AEDC F / HYPERSONIC	25 A
219	219 PUBLISHED	IA82C	11*11*74 -	11*15*74	5/1400	(75)	ARC 8X7-FT SUPERSONIC	044
220	220 PUBLISHED	LA52	8*26*74 -	08*30*74	140A,B	6.	LARC 20-IN HYPERSONIC (M=6)	6458
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2.197; 2.197; 2.198 2.200; 2.200;

AN STATUS	TEST NO.	TESTING SCHED. COMPL.	MODEL. Ref.	(10)	FACILITY	Ş
0	DA 143	11* 6*74 - 11*11*74	4/140A,B	(16)	RI 7X11-FT LOW SPEED	737
픙	OH49B	7* 2*74 - 07*12*74	4/140B	(22)	AEDC B / HYPERSONIC	57A
SA	SABF	10*18*74 - 12*10*74	SRB	(471)	MSFC 14-IN TRANSONIC	604
LA	LA56	11*11*74 - 11*22*74	VEH. 5	ô	LARC 8-FT TRANSONIC PRESSURE	669
P	0H4C	9*26*73 - 09*26*73	3/1398	(21)	AEDC B / HYPERSONIC	352
IA	IAG1B	2*26*74 - 02*26*74	3/139,089B	(52)	AEDC A / SUPERSONIC	2 1AA
IA	IA71B-2	12*19*74 - 01*09*75	5/1400	(74)	MSFC 14-IN TRANSONIC	610
LA	LA468	9*24*74 - 10*10*74	140A,B 0RB	6	LARC UNITARY PLAN	1.117
OA	DA 102	6*17*74 - 06*18*74	4/140A,B	(96)	LARC 8-FT TRANSONIC PRESSURE	687
IĄI	IA 1.7B	3*18*74 - 03*19*74	3/1398	(52)	AEDC B / HYPERSONIC	422
IA82B		1*28*75 - 02*64*75	5/140c	(75)	ARC 9X7-FT SUPERSONIC	044
0A 131	31	9*11*74 - 09*26*74	5/140C	. 74)	MSFC 14-IN TRANSDNIC	607
LAS9	6	12*20*74 - 01*07*75	4/140A.B	(72)	LARC 8-FT TRANSONIC PRESSURE	703
DA 1.13	13	8*10*74 - 10*04*74	4/140A.B	(121)	CALSPAN HIPERSONIC SHOCK	184-
SA30F	K	3* 3*75 - 03*13*75	SRB	(473)	MSFC 14-IN TRANSONIC	611
CA11	+-	2*12*75 - 02*20*75	ET/747	6	UNIV. OF WASH. LOW SPEED	1146
0A 155	55	2*10*75 - 03*07*75	4/140A,B (MOD)	(47)	LARC V/STDL	114
0.493	e	11*18*74 - 11*23*74	4/140A.B	(51)	CALSPAN HYPERSONIC SHOCK	737
LA38B	8B	3*27*74 - 03*29*74	140A,B	(o)	LARC 8-FT TRANSONIC PRESSURE	676
IH41A	₹	3*31*75 - 5*21*75	5/140c	(60)	AEDC A / SUPERSONIC	44
0H39B	8	1* 8*75 - 01*09*75	5/140C	(09)	AEDC B / HYPERSONIC	7.4A
IA111	Ξ	3*21*75 - 03*28*75	3/139B	(52)	AEDC A / SUPERSONIC	A3A
CA23A	₩	3*21*75 - 04*17*75	140C(M0D)/747	(48)	ARC 14-FT TRANSONIC	085
SA28	SA28F-2	3*17*75 - 04*11*75	SK2	(469)	MSFC 14-IN TRANSONIC	603
DA 161C	- 5 -	3*26*75 - 03*31*75	140A.B (MOD)	(45)	ARC 8X7-FT SUPERSONIC	094
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	NO.		480	t) 	z	131	182	353	83 A	622	073	809	439	7.14	072		462	, , , , , , , , , , , , , , , , , , ,	874	717	α::-	2 G	7 P	1477	<u> </u>	2 :	8111	
WIND TUNNEL	FACILITY	, esta-		AEDC F / HYPERSUNIC	ARC 3.5-FT HYPERSONIC	CALSPAN HYPERSONIC SHOCK	ARC 3.5-FT HYPERSONIC	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	MSFC 14-IN TRANSONIC	ARC 11-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	LARC 22-IN HELIUM	LARC 8-FT TRANSONIC PRESSURE	ARC 11-FT TRANSONIC			ARC 40X80-FT SUBSUNIC	THE BOEING CO TRANSUNIC	AEDC B / HYPEKSUNIC	LARC 8-FT TRANSUNIC PRESSORE	ARC 12-FT PRESSURE	LTV 4X4-FT SUPERSONIC	LARC 31-IN CONT-FEUW HTP.	THE BOEING CO TRANSUNIC	CALSPAN 8-FT TRANSONIC	LARC UNITARY PLAN	
	(ID)			(51)	(09.)	(37)	(31)	(29)	(21)	(11)	(47)	60	6	(72)	(88)			(26)	(45)	(26)	(44)	(45)	(44)	(35)	(47)	(44)	(44)	
MODEL	REF.			4/140A.B	5/1400	5/1030	I TPS TILES	3/139	3/1398	5/140C(74TS)	4/140A,B (MOD)	PRE-ATP	140C 0RB	5/1400	5/140C			DV101(ALT)	140A,B/747	5/140C	14OC/REMOTE ELE	140A,B/(ALT)	140C/REMOTE ELE	4/140A,B	4/140A,B/747	14OC/REMOTE ELE	140C/REMOTE ELE	
TESTING	COMPL			5 - 02*08*75	5 - 05*08*75	1 - 12*19*74	1	1	- 1		- 1			1	- 1	,	-	5 - 06*14*75	5 - 06*06*75	5 - 06*12*75	5 - 05*23*75	75 - 07*08*75	15 - 07*02*75	75 - 06*03*75	75 - 07*14*75	75 - 08*06*75	75 - 07*18*75	
	SCHED.	1 1		2* 5*75	4*17*75 -	12* 5*74	12* 2*73	9*13*73	8*21*74	4*25*75	5* 5*75	2* 1*71	2*26*75	7*24*7	5*19*75			5*27*75	5*20*75	6* 3*75	5*14*75	6*23*75	6*20*75	5* 6*75	6*25*75	7*28*75	7*18*75	
164				0A 160	217	11.00	ac child		# # C C C C C C C C C C C C C C C C C C	1 4 4 2 15	1 448	A A A	0 - 00 0 0 - 00 0 0 0 0	0 0	1472			0A 100	CAG	0H74	LA62	, 0A159	LA67	MA22	CA9	LA.70	LAG3A	
	DATAMAN	STATE		DIRI TSHED		PUBLISHED	PUBL I SHED	PUBL I SHED.	PUBLISHED	PUBLISHED	PUBL I SHED	PUBL I SHED			PUBCISHED PUBLISHED			PUBL ISHED										
i		; 2	2246	7.47	1677	2248	2249	2250	2251	2252	2253	2254	2255	2256	242 4-24 4-24	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	

-	DATAMAN	TEST	TESTING	MODEL		WIND TUNNEL	,
S S	STATUS	Q	SCHED. COMPL.	REF.	(ar)	FACILITY	Q.
2271	PUBLISHED	LA71A	10*17*75 - 10*22*75	4/140A.B	(69)	LARC UNITARY PLAN	1132
2272	PUBL I SHED	IA114	8*18*75 - 08*22*75	5/1400	(52)	ÁEDC B / HYPERSONIC	C4A
2273	PUBL I SHED	CA26	8* 4*75 - 08*15*75	14OC(MDD)/747 ((48)	LTV 4X4-FT SUPERSONIC	559
2274	PUBL I SHED	FA14	1* 9*75 - 07*06*75	5/140C	(74)	MSFC 14-IN TRANSONIC	909
2275	PUBLISHED	CA23B	5* 1*75 - 07*22*75	140C(MDD)/747 ((48)	ARC 14-FT TRANSONIC	085
2276	PUBLISHED	FH13	9*22*75 - 09*25*75	ET/SPIKE (6	AEDC A / SUPERSONIC	E1A
2277	PUBLISHED	SA 13F	9*30*74 - 06*17*75	SRB	(461)	MSFC 32-IN LUDWIEG (HIGH RN)	034
2278	CANCEL	LA61A	8*25*75 - 09*10*75	140C/REMOTE FLE ((44)	LARC LOW TURBULANCE PRESSURE	219
2279	PUBLISHED	LA63B	9*12*75 - 09*17*75	140C/REMOTE ELE (44)	LARC UNITARY PLAN	1151
2280	2280 PUBLISHED	LA28	6*17*74 - 06*20*74	140A,B 0RB (6	LTV 4X4-FT SUPERSONIC	498
2281	PUBLISHED	LA66	10*20*75 - 10*24*75	140C/REMDTE ELE (44	ARC 12-FT PRESSURE	135
A 2282	PUBLISHED	1H34	5* 5*75 - 09*03*75	5/1400	16	LERC 10X10-FT SUPERSONIC	038
687 249	PUBLISHED	MA 14	4*23*73 - 05*02*73	2A/089B(CAN) (92)	LTV 15X20-FT LOW SPEED	422
2284	PUBL I SHED	1528	9*25*75 - 10*29*75	5/1400	84)	ARC 9X7-FT SUPERSONIC	113
2285	PUBLISHED	DH50A	3*29*74 - 04*11*74	5/1400 (82)	AEDC B / HYPERSONIC	526
2286	PUBL I SHED	0A220	11*11*75 - 11*21*75	VEH 101 (ADS) (57)	ARC 14-FT TRANSONIC	150
2287	IN PROCESS	0513	11*24*75 - 11*26*75	LRSI TILE (85)	ARC 9X7-FT SUPERSONIC	166
2283	PUBLISHED	DH64	4*14*75 - 06*20*75	2A/089B (25)	LERC SPACE POWER FACILITY	DH64
2289	PUBLISHED	0A 163A	11*24*75 - 12*09*75	4/140A.B	1 6)	RI 7X11-FT LOW SPEED	751
2290	PUBLISHED	CA8	8*18*75 - 09*12*75	4/140A,B/747 (43)	LARC V/STOL	129
2291	IN PROCESS	LA79	11*28*75 - 12*11*75	1400	~·•	NSWC HYPERVELOCITY LAB (#8A)	1275
2292	PUBLISHED	LA36B	6* 3*75 - 06*05*75	140A,B (32)	LARC LOW TURBULANCE PRESSURE	214
2293	PUP: SHED	1A40	6*23*76 - 06*29*76	5/1400	75)	AECC A / SUPERSONIC	425
2294	PUBLISHED	0A172	12*15*75 - 01*13*76	4/140A,B(41?)	43)	RI 7X11-FT LOW SPEED	752
2295	PUBL I SHED	IH4:8	12*11*75 - 01*09*76	5/1400	(09)	AEDC A / SUPERSONIC	44

(**&**)

	- QN	229		238	666	228	82A	479	E3A	180	573	14	1496	181	740	640	6468	J3A	215	754	297	143	216	1173	189	DBA
WIND TUNNEL	FACILITY	LARC LOW TURBULANCE PRESSURE		LARC LOW TURBULANCE PRESSURE	LARC 7X10-FT HIGH SPEED	LARC LOW TURBULANCE PRESSURE	AEDC B / HYPERSONIC	ARC 40X80-FT SUBSONIC	AEDC B / HYPERSONIC	ARC 12-FT PRESSURE	LTV 4X4-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	THE BOEING CO TRANSONIC	CALSPAN 32-IN LUDWIEG	LARC 8-FT TRANSONIC PRESSURE	MSFC 14-IN TRANSCNIC	LARC 20-IN HYPERSONIC (M=6)	AEDC A / SUPERSONIC	ARC 3.5-FT HYPERSONIC	RI 7X11-FT LOW SPEED	RI 7-FT TRISONIC	ARC 14-FT TRANSONIC	ARC 3.5-FT HYPERSONIC	LARC UNITARY FLAN	CALSPAN HYPERSGNIC SHDCK	AEDC B / HYPERSONIC
	(ar)	6		(69)	(88)	(44)	(82)	(97)	(82)	(45)	(44)	(47)	(45)	(61-)	(69)	(486)	(13)	(09)	60	(43)	(72)	(89)	(82)	44)	(69)	(07)
MODEL	REF.	ORB/TC (ALT)		4/140A,B	140C/747	140C/REMDTE ELE	5/140C	DV101(ALT)	5/1400	140C(ALT)	140C/REMOTE ELE	4/140A,B (MOD)	140A,B/747	2A/089B	4/140A,B	SRB	8680	5/1400	ET/SPIKE	4/140A.B(ALT)	5/1400	ET FORETANK	5/140C	140C/REMOTE ELE	5/140C	5/1400
TESTING	SCHED. COMPL.	1*14*76 - 01*23*76		12*10*76 - 12*13*75	10* 6*75 - 11*07*75	1* 5*76 - 01*14*76	10* 4*74 - 10* 8*74	2* 2*76 - 02*27*76	9* 2*75 - 09*03*75	3*15*76 - 03*26*76	2*25*76 - 03*06*76	3*12*76 - 03*23*76	11*13*75 - 12*02*75	1*21*74 - 07*22*74	3*26*76 - 03*31*76	1* 6*76 - 03*11*76	5*21*75 - 05*2**75	3* 8*76 - 03*19*76	3*15*76 - 04*05*76	3*29*76 - 04*15*76	3*31*76 - 04*05*76	4*26*76 - 05*03*76	4*14*76 - 04*23*76	4* 6*76 - 04*16*76	12*17*75 - 02*23*76	3*26*76 - 04*09*76
TEST	NO.	LA81		LA73B	LA80	LA61B	0H54A	DA174	0H75	0A173	LA76	IA135C	CA 14	IHS	LA72	SA14FB	LA88	IH47	FH14	0A 1.76	IA141	IA137	0H53B	1475	IH43	0A169
DATAMAN	STATUS	2296 PUBLISHED		PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLISHED		PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBL I SHED	2312 PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLISHED	2320 PUBLISHED
J	Q.	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	₹ 2307	80E 250	2309	23:10	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320

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	NO.	н 8	(- -	757	1152	1177	620	749	59A	105	312	524	074	121	187	445	646	1345	759	1170	167	474	1493	82A	4	200	#
MIND TUNNEL	FACILITY	AEDC B / HYPERSONIE		KI /XII-FI LUW SPEED	LARC UNITARY PLAN	LARC UNITARY PLAN	MSFC 14-IN TRANSONIC	LARC 8-FT TRANSONIC PRESSURE	AEDC B / HYPERSONIC	LARC 31-IN CONF-FLOW HYP.	LARC 16-FT TRANSONIC	AEDC B / HYPERSONIC	ARC 8X7-FT SUPERSONIC	ARC 14-FT TRANSONIC	ARC 11-FT TRANSONIC	AEDC 4-FT TRANSONIC	MSFC 14-IN TRANSONIE	LARC UNITARY PLAN	RI 7X11-FT LOW SPEED	UNIV. OF WASH. LOW SPEED	ARC 2X2-FT TRANSONIC	AEDC B / HYPERSONIC	THE BOEING CO TRANSOVIC	AEDC B / HYPERSONIC	LARC 22-IN HELIUM	ARC 11-FT TRANSONIC	MSFC 14-IN TRANSDNIC
	(ID)	(82)	. (63	(70)	(72)	(72)	(449)	(72)	(02)	(0)	(51)	(29)	(483)	(45)	(41)	(486)	(74)	(203)	(66)	(8	(32)	(09)	(45)	(82)	(13)	(44)	(486)
MODEL	REF.	5/1400	VEH 402 (405)	VER IOZ (ADS)	5/140C	5/140C	SRB	5/140C	5/1400	F.S. TILE ARRAY	VEH 102 (ADS)	3/139B	SRB	140C(ALT)/747	147A.B (ALT)	SRB	5/1400	140¢	ADS PROBES	140A,B/747	TILE PANEL	5/1400	140A,B/747	5/140C	140C	140C/REMOTE ELE	SRB
TESTING	COMPL.	- 12*11*75	- 05±01±76		- 04*23*76	- 05*04*76	- 03*19*76	- 05*14*76	- 05+08+76	- 01*31*74	- 03*24*76	- 05*15*74	- 04*14*76	- 07*01*76	9/*60*/.0 -	- 05*06*76	- 01*28*77	- 09*17*81	- 06+02+76	- 09*15*75	- 07*27*76	. 07*26*76	- 11*05*75	09*02*75	- 05*24*76	07*24*76	9*15*76 - 10*06*76
•	SCHED.	11*14*75	5*20*76) .	4*18*76	4*26*76 -	12*23*75	5*10*76	5* 3*76	1*17*74	2*23*76	5* 6*74	3*29*76	94.8 *9	6*28*76	5* 5*76 -	10* 1+76	9*11*81	5*28*76	9*12*75	7*15*76	7*26*76	11* 3*75 -	8*26*75	4* 7*76 -	- 91*6 *1	- 9*16*76
TEST	NO	69H0	04228) 	IA94A	IA94B	SATAFA	IA93	I A 2 2	LA34	0A224	0H52	SATIFC	CA 13	0A175	SA 16F	IA140B	LA145B	0A236	csa	0532	0H98B	(35	0H54C	LA85	LA77	SA21F
DATAMAN	STATUS	PUBLISHÉD	PUBL I SHED		PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED		PUBLISHED	PUBLISHED	PUBLISHED		PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLISHED	IN PROCESS	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	2345 PUBLISHED
נו	NO.	2321	2322	•	2323	2324	2325	2326	2327	2328	2329	2330	233.1	2332	2333	2334	2335	2336	2337	2338	2339	2540	2341	2342	2343	2344	2345

	NO.	K 1.A	* 173	2	1178	1184	4556	764	758	213	P84	525	B7A	222	58A	131	119	788	764	246	118	246	834	3	ASA.	77	680	<u> </u>
WIND TUNNER	FACILITY	Ornopolation / A contr	AEDC A / SUPERSUATE	UNIV. OF WASH. LOW SPEED.	UNIV. OF WASH. LOW SPEED	UNIV. OF WASH. LOW SPEED	LARC MACH 8 VARIABLE DENSITY	RI 7X11-FT LOW SPEED	LARC 8-FT TRANSONIC PRESSURE	ARC 11-FT TRANSONIC	AEDC A / SUPERSONIC	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	ARC 3.5-FT HYPERSONIC	AEDC B / HYPERSONIC	CALSPAN HYPERSONIC SHOCK	ARC 8X7-FT SUPERSONIC	RI 7X11-FT LOW SPEED	LARC 8-FT TRANSONIC PRESSURE	ARC 16-FT TRANSONIC DYNAMIC	CINDEDSONIC	ARC SAVET SOFTWARE	LAKC TO-T - TANGOTTO	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	LARC 31-IN CONT-FLOW HYP.	MSFC 32-IN LUDWIEG (HIGH RN)	ARC 8X7-FT SUPERSONIC
	(QI)	!	(75)	(43)	(43)	(43)	(06)	(66)	(44)	(201)	(75)	(22)	(83)	(09)	(83)	(99)	(66)	(46)	(201)	(88)		(66)	(24)	(26)	(65)	(06)	(487)	(47)
MODEL	REF.		5/1400	4/140A.B/747	4/140A.B/747	4/140A.B/747	4/140B	ADS PROBES	140C/REMOTE ELE	0V101 (ALT)	5/140C	3/1398	5/1400	5/140C	5/1400	5/1400	Anc DEORFS	0.000	4/ 140A, b		4/1408	VEH 102	4/3408	5/140C	140C	4/1408	SRB	5/140C
TESTING	SCHED.		8*11*76 - 08*18*76	10*16*75 - 11*01*75	11*19*75 - 11*26*75		1	10+25+76 - 11+08+76			•	,	12*75 -	1	١	1					8*12*74 - 08*30*74	4*15*77 - 05*03*77	9* 2*74 - 09*12*74	1*30*75 - 02*03*75	12* 4*76 - 12*05*76	6*26*74 - 07*03*74	4*27*76 - 02*01*77	2*16*77 - 02*18*77
1651	NO.		IA142	CA 15A		CA 1.7	0H46	1 () () () () () () () () () (100	- Ó	LAGO	143	AHO OHO	1468	SOLIT	9 9 9	0100	0A221C	0A163B	LA92	0S7	0A145B	950	0H25B	0H57B	0H5 1-3	SA31F	DA 149C
	DALAMAN STATUS		PUBLISHED			PUBLISHED	PUBLISHED	POBLISHED	Pool Francis					PUBLI SHED				PUBLISHED	PUBLISHED	IN PROCESS	PUBLISHED		PUBLISHED	PUBL ISHED	DIIBI I SHED	TOTAL TOTAL		2369 PUBLISHED
Č	S S	į	2346	7347	100	2348	2349	2350	2331	2352	2353	2354	2355	2356	732/	2358	2359	2360	2361	2362	2363	2364	2365	2366	7367	5 - 6	7308	2369

	NO.	56-A	K2A	769	113	200	£.	228	412		118		027	130	TOA	173	177	Balman Bar 1 - Profes - Ma	R4A	118	1194	779	775	228		786
WIND TUNNEL	FACILITY	USC VAC. CHAMBER A	AEDC A / SUPERSONIC	LARC 8-FT TRANSONIC PRESSURE	CALSPAN 6-FT TRANSONIC	ARC 40X80-FT SUBSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSDNIC	·	ARC 11-FT TRANSONIC		MSFC IMPULSE BASE FLOW FAC.	LARC 31-IN CONT-FLOW HYP.	AEDC B / HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSUNIC		AEDC B / HYPERSONIC	ARC BX7-FT SUPERSONIC	LARC UNITARY PLAN	LARC 8-FT TRANSONIC PRESSURE	RI 7X11-FT LOW SPEED	ARC 3.5-FT HYPERSONIC		LARC 8-FT TRANSONIC PRESSURE
	(ar)	(65)	(09)	(201)	(o)	(66)	(47)	(72)	(112)		(66)		(25)	(6)	(07)	(23)	(23)		(83)	(66)	(44)	(72)	(45)	(89)		(44)
MODEL	REF.	5/1400	5/1400	TAILCONE	SUPPORT TARES	ADS PROBES	5/1400	5/140¢	FUEL LINE		VEH 102		2A/089B	NOSE CONE	5/1400	FLAT PLATE	FLAT PLATE		5/1400	VEH 102	140C/REMOTE ELE	5/1400	140C(ALT)	FLAT PLATE		140C SILTS
TESTING	COMPL.	11+24+76	01+10+77	02*28*77	04*04*77	01*31*77	03*04*77	- 04*15*77	- 06+27+80		- 04*02*77		- 07*16*74	04+21+77	- 05*03*77	- 09*20*73	10*30*73		04+21+77	- 04*20*77	- 05*24*77	- 06*01*77	07*07*77	- 07+27+77		08*05*77
TES	SCHED.	7* 2*76 -	1* 3*77 -	2*17*77 -	3*25*77 -	1*24*77 -	2+24+77 -	4* 6*77 -	6+20+80 -		3* 8*77 -		5*15*74 -	3*16*77 -	4*27*77 -	9+12+73 -	10*24*73 -		4~20*77 -		5*18*77 - (5*24*77 - (7* 1*77 - (7+14+77 = (8* 3*77 - 08*05*77
TEST	NO.	0H78	1172	LA99.	LA103	QA2:3/7	0A 149A	IA 144	IA191		OA 145A		38HO	LA93	IA 148	OH15	0H44		0H84A-2	0A 145C	LA 101	IA244	0 A 250	EHS 1A		LA111
DATAMAN	STATUS	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED		PUBL I SHED	· · · · · · · · · · · · · · · · · · ·	PUBL I SHED	IN PROCESS	PUBL I SHED	PUBL I SHED	PURETSHED		PUBL I SHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED		PUBLISHED
Q	NO.	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	¥ 2382	253 253	2384	2385	2386	2387	2388	2389	2390	1391	2392	2393	2394	2395

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ID TUNNEL	ON.	1212	C PRESSURE 787	IC 470	1217	RSONIC 042	NIC , 705	ED 776	IC 470	275	218	IC 649	VIC 233	VIC 272	PRESSURE 803	R3A	PRESSURE 804	41C 234	JIC 242	.c 431	PSA	P5A	110 235	110 227		325
MIND	FACILITY	LARC UNITARY PLAN	LARC 8-FT TRANSONIC PRESSURE	AEDC 16-FT TRANSONIC	LARC UNITARY PLAN	LERC 10X10-FT SUPERSONIC	ARC 8X7-FT SUPERSONIC	RI 7X11-FT LOW SPEED	AEDC 16-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 12-FT PRESSURE	MSFC 14-IN TRANSONIC	ARC 3.5-FT HYPERSONIC	ARC 9X7-FT SUPERSONIC	LARC 8-FT TRANSONIC PRESSURE	AEDC B / HYPERSONIC	LARC 8-FT TRANSONIC PRESSURE	ARC 3.5-FT HYPERSONIC	ARC 9X7-FT SUPERSONIC	AEDC 16-FT TRANSONIC	AEDC A / SUPERSONIC	AEDC B / HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	CINCOLAGE TEAMSONIE	700000000000000000000000000000000000000
	(<u>I</u> D)	(44)	(72)	(47)	(44)	(66)	(11)	(66)	(68)	(88)	(66)	(74)	(20)	(68)	(44)	(16)	(201)	(60)	(47)	(66)	(105)	(105)	(66)	(0.)	(404)	
MODEL	REF.	, 140C SILTS	5/140C	5/1400	140C SILTS	ADS PROBES	2A/089B	VEH 102	VEH 102	5/140C	VEH 102	5/140C	5/1400	VEH 102	140C/REMOTE ELE	WING TIP SEAL	1.40C	5/1400	5/1400	ADS PROBES	VEH. 102	VEH. 102	ELEV/ELEV SEAL	GAS TEMP PROBE	VEH 103	107
TESTING	COMPL.	- 08*10*77	- 09*08*77	- 11*20*77	- 08*31*77	- 08+11+77	- 08*11*73	- ,11*30*76	- 11+10+77	- 10*31*77	- 11+11+77	- 02+03+78	- 01*23*78	- 01*06*78	- 02*06*78	- 12*10*77	- 02*06*78	- 03+10+78	02*01*78	- 03+01+78	- 03*30*78	04+06+78	04+21+78	06*23*77	04+28+78	
-	SCHED.	8* 8*77	8* 5*77	9+ 2+77	23*77	6* 7*77	8+ 9+73	11+20+76	10+28+77	10* 7*77	9*13*77	12+15+77	12* 1*77	12+16+77	2* 1*78	12* 6*77	2* 6*78	1+30+78	1* 9*78 -	2*17*78	3*21*78 -	3*30*78	3*24*78 -	6*20*77 -	4* 8*78 -	, ·
TEST	NO.	LA110	LA113	IA 105A	LA 114	0A234	1510	0A223	IA156A	IA119	DA 10.1	IA 181	11173	IA 1568	LA115	0H56	LA116	1H90	IA 105B	0A232	0A209	DA208	0H58	IH160	UA270C	
DATAMAN	STATUS	PUBL I SHED	PUBL I SHED	PUBL ISHED	PUBL I SHED:	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBL I SHED:	CANCEL	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBLISHED	PUBLISHED	
_	NO	2396	2397	2398	2399	2400	2401	2402	2403	240#	2405	2406	¥ 2407	80 254	2409	2410	2411	2412	2413	2414	2415	2416		2418	2419	

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STATUS NO. SCHED. COMPL. REF. (1D) 1 PUBLISHED 0.0251C 5+29+78 - 05+15-78 ADS PROBES (99) ARC 2 PUBLISHED FH16 7+1+78 - 05+05-78 FT/5PIKE (0) ARC 3 PUBLISHED Ch176A 5+1+78 - 05+00-78 FT/5PIKE (0) ARC 5 PUBLISHED LA124 6+7+77 - 05+00-78 F1/40C (47) ARC 5 PUBLISHED LA124 6+7+77 - 05+00-78 5/140C (74) ARC 9 PUBLISHED LA124 6+7+77 - 05+00-78 5/140C (74) ARC 9 PUBLISHED LA125 7+15-78 - 07+24-78 FLAT PLATE (58) LARC 9 PUBLISHED LA125 7+15-78 - 07+05-78 VEH 102 (74) ARC 1 PUBLISHED LA125 7+3-78 - 07+05-78 VEH 102 (74) ARC 1 PUBLISHED LA125 7+3-78 - 07+05-78 VEH 102 (74)		DATAMAN	TEST	I	TESTING	MOM		WIND TUNNEL	
PUBLISHED OA251C 5+29/78 - 06+19-78 ADS PROBES (99) ARC 8X7-FT SUPERSONIC PUBLISHED FH15 5++18 - 05-09-78 ET/SPIKE (0) AEC A / SUPERSONIC PUBLISHED FH16 7++178 - 05-30-78 ET/SPIKE (0) AEC A / SUPERSONIC PUBLISHED DA126A 5++178 - 05-30-78 5/140C (47) ARC 11-FT TRANSONIC PUBLISHED DH103B 4+27-78 - 04-28-78 5/140C (60) AEC D / HYPERSONIC PUBLISHED DH103B 4+27-78 - 04-28-78 5/140C (60) AEC D / HYPERSONIC PUBLISHED DA170A 5-18-78 - 07-24-78 FLAT PRATE (8) AEC HOLITARY PLAN PUBLISHED 1183 4+19-78 - 07-24-78 5/140C (60) AEC D / HYPERSONIC PUBLISHED 0A270A 5+18-78 - 07-24-78 5/140C (60) AEC D / HYPERSONIC PUBLISHED 0A171 6+18-78 - 06-22-78 VEH 102 (105) LARC HOLITARY PLAN PUBLISHED DA129 7+18-778 04-20-78 9/140C (60)	ġ	STATUS	O	SCHED.	COMPL.	REF.	(ID)	FACILITY	NO.
PUBLISHED	2421		DA251C	5*29*78	. 06*15*78	ADS PROBES	(66)	ARC 8X7-FT SUPERSONIC	282
PUBLISHED FH16 7* 1*78 - 07*15-78 ET/SPIKE (0) ARC 3.5-FT HYPERSONIC PUBLISHED 0A126A 5* 1*78 - 05*10*77 5/140C (47) ARC 11-FT TRANSONIC PUBLISHED 1A724 6* 7*77 - 06*10*77 5/140C (74) LARC UNITARY PLAN PUBLISHED 0H103B 4*27*78 - 06*10*77 5/140C (84) LERC 10XI-15 PLAN PUBLISHED 1H51B 7* 157*8 - 07*24*78 5/140C (84) LERC 10XI-15 PLANSONIC PUBLISHED 1H63B 7* 157*8 - 07*24*78 5/140C (80) ARD A PYPERSONIC PUBLISHED 1H63B 4* 19*78 - 07*24*78 5/140C (80) ARD A SUFERSONIC PUBLISHED 1H63B 4* 19*78 - 07*24*78 5/140C (80) ARD A SUFERSONIC PUBLISHED 1A72B 0**0*0*7*8 5/140C (105) NOW HYPERSONIC PUBLISHED 1A73B 8* 21*7*8 - 06*0*1*78 5/140C (105) NOW HYPERSONIC PUBLISHED 1A73B 8* 21*7*8 - 06*0*1*78 5/140C (105) NOW HYPERSO	2422		FH15.	1*78	05*05*78	ET/SPIKE	6	AEDC A / SUPERSONIC	420
PUBLISHED 041264 5 * 1*78 - 05*30*78 5/140C (47) ARC II-FT TRANSONIC PUBLISHED 041264 6 * 7*77 - 06*10*77 5/140C (74) LARC UNITARY PLAN PUBLISHED 04103B 4*27*78 - 04*28*78 5/140C (60) AEC D / HPRESSONIC PUBLISHED 11111 4*178 - 04*28*78 5/140C (60) AEC D / HPRESSONIC PUBLISHED 11411 4*178 - 07*24*78 FLAT PRATE (58) ARC 3.5-FT HYPERSONIC PUBLISHED 11412 4*1978 - 07*24*78 FLAT PRATE (58) ARC 3.5-FT HYPERSONIC PUBLISHED 11425 7*5-78 - 05*27*78 VEH 102 (60) AEC O / HPRESONIC PUBLISHED 11425 7*5-78 - 05*27*78 VEH 102 (105) LARC 10X10-FT SUPERSONIC PUBLISHED 11439 9*22*76 - 04*4*77 5/140C (60) AEC 10X10-FT SUPERSONIC PUBLISHED 11438 9*22*76 - 04*4*77 5/140C (73) ARC 10X10-FT SUPERSONIC PUBLISHED 11438 9*22*76 - 04*4*77 5/140C (74)	2423		FH16	7* 1*78 -	07*15*78	ET/SPIKE	(o)	ARC 3.5-FT HYPERSONIC	247
PUBLISHED LA424 6 • 7 • 77 - 06 • 10 • 77 5 / 140C (74) LARC UNITARY PLAN PUBLISHED 0H103B 4 • 27 • 77 - 06 • 10 • 77 6 • 7 • 77 - 06 • 10 • 77 - 06 • 10 • 77 PUBLISHED 1H111 4 • 1 • 10 • 7 • 10 • 7 • 10 • 7 • 10 • 7 • 10 • 7 • 70 • 7 • 10 • 7 • 70 • 7 • 70 • 7 • 70 • 7 • 70 • 7 • 7	2424		0A126A	1*78	05*30*78	5/140C	(47)	ARC 11-FT TRANSONIC	289
bull ished Lat24 6 * 7*77 - 06*10*77 5/140C (74) LARC UNITARY PLAN PUBLISHED OH1038 4*2778 - 04*28*78 5/140C (60) AEDC D / HYPERSONIC PUBLISHED 1H11 4* 1*78 - 04*28*78 5/140C (84) LERC 10X10-FT SUPERSONIC PUBLISHED 4H51B 7* 15*78 - 06*09*78 VEH 102 (89) LARC 16*FT TRANSONIC PUBLISHED LA125 7* 3*78 - 06*09*78 VEH 102 (60) AEDC A / SUPERSONIC PUBLISHED LA125 7* 3*78 - 06*27*8 VEH 102 (105) LARC 16*FT TRANSONIC PUBLISHED CA125 7* 3*78 - 06*22*78 VEH 102 (105) NSW HYPERSONIC PUBLISHED CA125 7* 7*78 - 06*22*78 VEH 102 (105) NSW HYPERSONIC PUBLISHED 1H39 9*22*76 - 04*14*77 5/140C (105) NSW HYPERSONIC PUBLISHED 1A139 9*22*76 - 04*14*77 5/140C (73) AEDC 16*FT TRANSONIC PUBLISHED 1A139 9*22*76 - 04*14*77 5/140C (74) AEDC 16*FT	2425			•		•••	•		
PUBLISHED OH103B 4+27+78 04+28+78 5/140C (60) AEDC D / HYPERSONIC PUBLISHED 1H11 4+ 1+78 - 04+18+78 5/140C (84) LERC 10X10-FT SUPERSONIC PUBLISHED 1H51 4+ 1+78 - 04+18+78 FLAT PRATE (58) ARC 3.5-FT HYPERSONIC PUBLISHED 0A270A 5+15+78 - 04+26+78 VEH 102 (39) LARC 16-FT TRANSONIC PUBLISHED 11485 4+19+78 04+26+78 VEH 102 (405) LARC 16-FT TRANSONIC PUBLISHED LA125 7+ 3+78 07+05+78 VEH 102 (405) LARC 16-FT TRANSONIC PUBLISHED LA125 7+ 3+78 07+15+78 VEH 102 (405) LARC 16-FT TRANSONIC PUBLISHED LA125 7+ 3+78 07+15+78 VEH 102 (405) LARC 16-FT TRANSONIC PUBLISHED 11A38 8+21+78 08+01+77 5/140C (74) AEDC 16-FT TRANSONIC PUBLISHED 11A182 9+19+78 09+01+78 5/140C (74) AEDC 16-FT TRANSONIC PUBLISHED<	2426		LA 124		06*10*77	5/140C	(74)	LARC UNIȚARY PLAN	1207
PUBLISHED 1H11 4 * 1*78 - 04*18*78 5/140C (84) LERC 10X10-FT SUPERSONIC PUBLISHED 1451B 7*15*78 - 07*24*78 FLAT PLATE (58) ARC 3.5-FT HYPERSONIC PUBLISHED 0A270A 5*15*78 - 06*03*78 VEH 102 (39) LARC 16-FT TRANSONIC PUBLISHED 11485 4*19*78 - 06*03*78 VEH 102 (60) AEDC A / SUPERSONIC PUBLISHED 0A171 6* 5:78 - 06*02*78 VEH 102 (105) LARC 16-FT TRANSONIC PUBLISHED 0A171 6* 5:78 - 06*02*78 VEH 102 (105) NSWC HYPERSONIC LAB (#9) PUBLISHED 11439 9*22*76 - 04*14*77 5/140C (105) NSWC HYPERSONIC PUBLISHED 11439 9*22*76 - 04*14*77 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 11438 8*21*78 - 09*01*78 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 114182 9*19*78 - 09*20*78 5/140C (74) AEDC 16-FT TRANSONIC PUBLISHED 11483 1*25*78 - 03*10*78 5/140C <td< td=""><td>2427</td><td></td><td>0H103B</td><td>4*27*78</td><td>04*28*78</td><td>5/1400</td><td>(09)</td><td>AEDC D / HYPERSONIC</td><td>V2C</td></td<>	2427		0H103B	4*27*78	04*28*78	5/1400	(09)	AEDC D / HYPERSONIC	V2C
PUBLISHED 41451B 7+15+78 - 07+24+7B FLAT PRATE (5B) ARC 3-5-FT HYPERSONIC PUBLISHED 0A270A 5+15+78 - 06+03+7B VEH 102 (39) LARC 16-FT TRANSONIC PUBLISHED 1H85 4+19+7B - 06+03+7B 5/140C (60) AEDC A / SUPERSONIC PUBLISHED 0A129 7+3+7B - 07+05+7B VEH 102 (105) LARC UNITARY PLAN PUBLISHED 0A129 7+3+7B - 07+15+7B VEH 102 (105) NSWC HYPERSONIC LAB (#9) PUBLISHED 0A129 7+7+7B - 07+15+7B VEH 102 (105) LARC UNITARY PLAN PUBLISHED 1H39 9+22+7G - 04+4+77 5/140C (105) LARC UNITARY PLAN PUBLISHED 1A138 8+21+7B - 08+01+7B 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 1A182 9+19+7B - 09+07+7B 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 1H83 1+25+7B - 03+10+7B 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 0H79 6+1+7B - 08+24+7B 5/140C (2428		IHtt	4* 1*78 -	04*18*78	5/140C	(84)	LERC 10X10-FT SUPERSONIC	045
PUBLISHED DAZ70A 5+15+78 - 06+09+78 VEH 102 (39) LARC 16-FT TRANSONIC PUBLISHED 11485 4+19+78 - 04+26+78 5/140C (60) AEDC A / SUPERSONIC PUBLISHED LA125 7+3+78 - 04+26+78 VEH. 102 (105) LARC UNITARY PLAN PUBLISHED 0A171 6+5+78 - 06+22+78 VEH. 102 (105) NSWC HYPERSONIC LAB (#9) PUBLISHED 0A129 7+7+78 - 07+15+78 VEH. 102 (105) NSWC HYPERSONIC LAB (#9) PUBLISHED 1H39 9+22+76 - 04+14+77 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 1A138 8+21+78 - 08+01+78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1A182 9+19+78 - 09+20+78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1H83 1+25+78 - 03+10+78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 0H79 6+ 1+78 - 08+24+78 5/140C (65) USC VAC. CHAMBER A PUBLISHED 1A183 11+15+78 - 11+16+78 VEH 102 (89) <td>2429</td> <td></td> <td>4H5:18</td> <td>7*15*78 -</td> <td>07*24*78</td> <td>FLAT PLATE</td> <td>(28)</td> <td>ARC 3.5-FT HYPERSONIC</td> <td>239</td>	2429		4H5:18	7*15*78 -	07*24*78	FLAT PLATE	(28)	ARC 3.5-FT HYPERSONIC	239
PUBLISHED 1H85 4*19*78 - 04*26*78 5/140C (60) AEDC A / SUPERSONIC PUBLISHED LA125 7* 3*78 - 06*22*78 VEH. 102 (105) LARC UNITARY PLAN PUBLISHED DA129 7* 7*78 - 06*22*78 VEH. 102 (105) NSWC HYPERSONIC LAB (#9) PUBLISHED DA129 7* 7*78 - 06*22*78 VEH.102 (105) NSWC HYPERSONIC LAB (#9) PUBLISHED 1H39 9*22*76 - 04*14*77 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 1A138 8*21*78 - 09*01*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1A182 9*19*78 - 09*01*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1A182 9*19*78 - 09*20*78 5/140C (75) ARC 10X10-FT SUPERSONIC PUBLISHED 1A183 1*25*78 - 09*20*78 5/140C (75) ARC VAC. CHAMBER A PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) AGC VAC. CHAMBER A PUBLISHED 1A183 11*16*78 - 11*16*78 5/140C	2430		0A270A	5*15*78 -		VEH 102	(66)	LARC 16-FT TRANSONIC	325
PUBLISHED LA125 7* 3*78	2431		IH85	4*19*78		5/1400	(60)	AEDC A / SUPERSONIC	WS
PUBLISHED 0A171 6* 5*78 - 06*22*78 VEH. 102 (105) NSWC HYPERSONIC LAB (#9) PUBLISHED 0A129 7* 7*78 - 07*15*78 VEH102 (47) AEDC 16-FT TRANSONIC PUBLISHED 1H39 9*22*76 - 0A*14*77 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 1A138 8*21*78 - 08*01*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1A138 8*21*78 - 09*20*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1A183 1*25*78 - 09*20*78 5/140C (47) AEDC 16-FT TRANSONIC PUBLISHED 1A183 1*25*78 - 03*10*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) JSC VAC. CHAMBER A PUBLISHED 1A183 11*15*78 - 11*16*78 VEH 102 (65) JSC VAC. CHAMBER A PUBLISHED 0A146 11*2*7*8*78 - 12*07*78 5/140C (77) ARC 8X7-FT SUPERSONIC	2432		LA 125	7* 3*78	07*05*78	VEH. 102	(105)	LARC UNITARY PLAN	1243
PUBLISHED 0A129 7* 7*78 - 07*15*78 VEH102 (47) AEDC 16-FT TRANSONIC PUBLISHED 1H39 9*22*76 - 0A*14*77 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 1A138 8*21*78 - 08*01*78 5/140C (74) MSFC 14-IN TRANSONIC PUBLISHED 1A132 9*19*78 - 09*01*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1A182 9*19*78 - 09*20*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1H83 1*25*78 - 03*10*78 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED 1A183 11*15*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED 0A146 11*28*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC	2433		DA 1.7.1	- 82*2*9	06*22*78	VEH. 102	(105)	NSWC HYPERSONIC LAB (#9)	1310
PUBLISHED FA25 4*15*78 - 04*14*77 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED FA25 4*15*78 - 08*01*78 5/140C (74) MSFC 14-IN TRANSONIC PUBLISHED 1A138 8*21*78 - 09*01*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1A182 9*19*78 - 09*20*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1H83 1*25*78 - 03*10*78 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED 1A183 11*15*78 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED 0A146 11*28*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC	2434		0A 1.29	7* 7*78 -	07*15*78	VEH102	(44)	AEDC 16-FT TRANSONIC	202
PUBLISHED FA25 4+15*78 - 08*01*78 5/140C (74) MSFÇ 14-IN TRANSONIC PUBLISHED IA138 8*21*78 - 09*01*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED IA182 9*19*78 - 09*20*78 5/140C (47) AEDC 16-FT TRANSONIC PUBLISHED IH83 1*25*78 - 03*10*78 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED 1A183 11*15*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED 0A146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2435		1H39	9*22*76 -	04*14*77	5/1400	(61)	LERC 10X10-FT SUPERSONIC	041
PUBLISHED FA25 4*15*78 - 08*01*78 5/140C (74) MSFÇ 14-IN TRANSONIC PUBLISHED 1A138 8*21*78 - 09*01*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1A182 9*19*78 - 09*20*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED 1H83 1*25*78 - 03*10*78 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED 1A183 11*15*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED DA146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2436								
PUBLISHED IA138 8*21*78 - 09*01*78 5/140C (75) ARC 9X7-FT SUPERSONIC PUBLISHED IA182 9*19*78 - 09*20*78 5/140C (47) AEDC 16-FT TRANSONIC PUBLISHED IH83 1*25*78 - 03*10*78 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED IA183 11*15*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED QA146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2437		FA25	4+15+78 -	08*01*78	5/140c	(74)	MSFC 14-IN TRANSONIC	652
PUBLISHED 1A182 9*19*78 - 09*20*78 5/140C (47) AEDC 16-FT TRANSONIC PUBLISHED 1H83 1*25*78 - 03*10*78 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED 1A183 11*15*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED QA146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2438		IA 1:38	8*21*78 -	09*01*78	5/1400	(75)	ARC 9X7-FT SUPERSONIC	246
PUBLISHED IH83 1*25*78 - 03*10*78 5/140C (19) LERC 10X10-FT SUPERSONIC PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED IA183 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED QA146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2439		1A182	9*19*78 -	09*20*78	5/140C	(47)	AEDC 16-FT TRANSONIC	517
PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED IA183 11*15*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED 0A146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2440		1483	1*25*78 -	03*10*78	5/140C	(19)	LERC 10X10-FT SUPERSONIC	044
PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED IA183 11*15*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED QA146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2441.							•	
PUBLISHED 0H79 6* 1*78 - 08*24*78 5/140C (65) USC VAC. CHAMBER A PUBLISHED IA183 11*15*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED DA146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2442								
PUBLISHED 11*15*78 - 11*16*78 VEH 102 (89) AEDC 16-FT TRANSONIC PUBLISHED 0A146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2443		0H79		08*24*78	5/1400	(65)	USC VAC. CHAMBER A	61-A
PUBLISHED 0A146 11*28*78 - 12*07*78 5/140C (47) ARC 8X7-FT SUPERSONIC	2444		IA183	11*15*78 -		VEH 102	(68)	AEDC 16-FT TRANSONIC	519
_	445	PUBL I SHED	DA 146	11*28*78	12*07*78	5/140C	(47)	ARC 8X7-FT SUPERSONIC	318

WIND TUNNEL	NO.			ONIC 241	NIC 505	NIC 116	11C P4A	ONIC 230	WIEG 100	LOW HYP. 114	11c B65	ONIC 347	1267	369		NIC GEE	ONIC 244	DNIC 283	110 380	Z B67	ONIC 508	ONIC (M=6) 6559	ONIC 245	ONIC 247	
IA) FACILITY	uur + S) ARC 3.5-FT HYPERSONIC) AEDC 16-FT TRANSONIC) ARC 2X2-FT TRANSONIC) AEDC B / HYPERSONIC) ARC 3.5-FT HYPERSONIC	CALSPAN 32-IN LUDWIEG) LARC 31-IN CONT-FLOW HYP.) AEDC B / HYPERSONIC) ARC 9X7-FT SUPERSONIC) LARC UNITARY PLAN) ARC 11-FT TRANSONIC) MSFC 14-IN TRANSONIC) ARC 3.5-FT HYPERSONIC) ARC 8X7-FT SUPERSONIC) ARC 11-FT TRANSONIC) AEDC A / SUPERSONIC) ARC 9X7-FT SUPERSONIC) LARC 20-IN HYPERSONIC (M=6)) ARC 3.5-FT HYPERSONIC) ARC 3.5-FT HYPERSONIC	
MODEL	REF. (ID)	*		FLAT PLATE (58)	ET FORETANK (68)	LRSI TILE (85)	ELEV/ELEV (94)	5/1400 (98)	5/1400 (19)	140A,B (0)	5/1400 (56)	5/140c (47)	ET FORETANK (68)	LRSI TILES (96)		5/140C (74)	FLAT PLATE (58)	ET FORETANK (68)	TPS TILES (96)	5/140c (83)	TILE (81)	VEH 102 (72)	5/1400 (56)	5/1400 (60)	
TESTING	SCHED. COMPL.			5*78 - 02*16*79	11*27*78 - 12*14*78	1*11*76 - 01*29*76	2*78 - 03*11*78	8*28*77 - 09*07*77	- 12*12*77	1*75 - 06*06*75	10*25*78 - 11*29*78	4* 2*79 - 04*13*79	3*26*79 - 03*30*79	- 04*20*79		3*14*79 - 05*16*79	5* 1*79 - 06*00*79	5*79 - 03*11*79	- 07*05*79	5* 1*79 - 06*01*79	- 08*27*81	- 04*20*81	- 11*01*79	7*23*79 - 08*01*79	
TEST	ND. SCH			IH51C 12*26*78	IA132 11*27		0H90 3* 2*78		IH75 10* 3*77	LA57B 6* 4*75				4		FA27 3*14	IH510 5+ 1	IA131C 3* 5	0542 7* 2*79	IH102-3 5* 1	0557 8*26*81	0A257 3*12*81	IH103-2 10*15*79	0H1058 7*23	
DATAMAN	STATUS			PUBLISHED	PUBL I SHED	PUBL I SHED	PUBLISHED	PUBLISHED	PUBL TSHED	PUBL ISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED		IN PROCESS	PUBL I SHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBLISHED	PUBL I SHED	PUBL I SHÉD	PUBL I SHED	
DATA	ON	2446	2447	2448 PL	2449 PL	2450° PU	2451. PU	2452 PL	2453 PU	2454 PU	2455 PU	2456 PL	2457	25 2458 PU	2459	2460 IN	2461 PU	2462 PU	2463 PU	2464 PU	2465. PU	2466 PU	2467 PU	2468 PU	

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	NO	341	B65	382	656	342	411	6546	1299	250		427	556	742	. 4	C 7 1	5/4	436	a Cu	3 . 8	<u> </u>	BHO	B17	4	254	253	
WIND TUNNEL	FACILITY	LARC 16-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 2X2-FT TRANSONIC	MSFC 14-IN TRANSONIC	LARC 16-FT TRANSONIC	ARC 9X7-FT SUPERSONIC	LARC 20-IN HYPERSONIC (M=6)	LARC UNITARY PLAN	APC 3 5-FT HYPERSONIC		ARC 11-FT TRANSONIC	AFDC 16-FT TRANSONIC	CINCOCACIO	LTV 4X4-F1 SUPERSUNIC	ARC 11-FT TRANSONIC	AEDC 16-FT TRANSONIC	ARC 11-FT TRANSONIC		AEDC 16-FT IKANSUNIC	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	AEDC B / HYPERSONIC	ARC 3.5-FT HYPERSONIC	ARC 3.5-FT HYPERSONIC	
	(10)	(68)	(65)	(101)	(74)	(105)	(47)	(74)	(106)	(09)		(47)		Ē :	(10 6)	(113)	(84)	(96)		(108)	(26)	(106)	(64)	(72)	(63)	(09)	. -
MODEL	REF.	VEH 102	140C SILTS	TILE	5/1400	VEH. 102	5/140C	VEH 102	VEH 102		5/1400	5/140C		SdI	VEH 102	TPS	5/140C	TPS TILE		TPS TILE	5/140C	VEH 102	ELEV/ELEV	VEH 102	ELEV/ELEV	5/1400	
TESTING	SCHED. COMPL.	10*11*79 - 11*01*79	. 4		8 1*79 - 09*01*79	12*26*79 - 01*03*80	1	3*18*80 - 05*01*80	1* 8*80 - 02*01*80	· · · · · · · · · · · · · · · · · · ·	2* 7*80 - 04*17*85	08*60*50 - 08*66*8		1*28*81 - 02*04*81	7*28*80 - 08*01*80	4*30*81 - 06*01*81	7* 1*80 - 07*08*80	1*27*81 - 01*29*81	•	8*26*81 - 08*27*81	10*27*80 - 11*24*80	11*25*80 - 01*06*81	1* 7*81 - 01*08*81	2*16*81 - 02*20*81		11*17*80 - 01*30*81	, .
TEST	N.	FA 132	DH400	04252	FA28	LA 140	1.A 190B	LA1418	LA131		IH104	007	08400	0549	LA144	0220	0A253	05510		0856	0H109	0A258	DH107	0A259	- HO	0H110	
New Attack		יים ויים יים יים יים יים יים יים יים יים								. 62	2480 PUBLISHED		82 PUBLISHED	83 PUBLISHED	84 PUBLISHED					2489 PUBLISHED	2490 PUBLISHED					2494 PUBLISHED	
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WIND TUNNEL		ONIC	SONIC	AN.	BSONIC	•			ONIC PRESSURE		SONIC	ONIC	ONIC	
	FACILITY	AEDC B / HYPERSONIC	AEDC 16-FT TRANSONIC	LARC UNITARY PLAN	ARC 40X80-FT SUBSDNIC				LARC 8-FT TRANSONIC PRESSURE		AEDC 16-FT TRANSONIC	ARC 11-FT TRANSONIC	ARC 11-FT TRANSONIC	
Į.	(ID)	(09)	(66)	(0/)	(26)				(719)		(108)	(96)	(106)	
MODEL	REF.	5/1400	ADS PROBES	DV 102	0V101(ALT)				TPS		TPS	TPS TILE	VEH 102	
TESTING	SCHED. COMPL.	9+24+81 - 09+30+81	3*12*81 - 03*20*81	1*12*81 - 02*02*81	11+28+75 - 12+01+75	-		•	3*23*81 - 04*01*81		12+10+81 - 12+11+81	6* 9*81 - 06*09*81	4+19+82 - 04+30+82	-
TEST	NO.	0H1 1:1	MA34	0A255D	DA 164				05538		05466	0980	MA33A	
DATAMAN	STATUS	PUBLISHED	IN PROCESS	PUBL I SHED	PUBL I SHED				2503 PUBLISHED		PUBLISHED	PUBLISHED		
Ø	ND.	2495	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	5208 5208



APPENDIX B

TABLE B2. - DATAMAN DOCUMENT TITLES





CHRYSLER DATA MANAGEMENT SERVICES(DMS)
SPACE SHUTTLE WIND TUNNEL TEST PROGRAM
DATA REPORT DOCUMENTATION

PAGE

SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE	AERODYNAMIC STABILITY AND CONTROL CHARACTERISTICS OF A .01925 SCALE MD ATP ORBITER AT MACH NUMBERS FROM 1.9 TO 4.63	RESULTS OF TRANSONIC TESTS IN THE NASA/LARC 8 FOOT PRESSURE TUNNEL ON A 0.015 SCALE MODEL NR-PRR SPACE SHUTTLE ORBITER	HYPERSONIC AERODYNAMIC CHARACTERISTICS OF NR-ATP ORBITER, ORBITER WITH EXTERNAL TANK, AND ASCENT CONFIGURATION	LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF LOW ASPECT RATIO WING CONFIGURATIONS IN GROUND EFFECT FOR A MOVING AND STATIONARY GROUND SURFACE	AERODYNAMIC STABILITY, CONTROL EFFECTIVENESS AND DRAG CHARACTERISTICS OF A SHUTTLE ORBITER CONFIGURATION AT MACH NUMBERS FROM O.6 TO 4.96	AERODYNAMIC STATIC STABILITY AND CONTROL EFFECTIVENESS OF A PARAMETRIC SHUTTLE LAUNCH CONFIGURATION	RESULTS OF INVESTIGATIONS ON A O.015 SCALE MODEL NORTH AMERICAN ROCKWELL SPACE SHUTLE ORBITER IN THE NASA/ARC 3.5 FOOT HYPERSONIC WIND TUNNEL	STATIC STABILITY AND PERFORMANCE CHARACTERISTICS OF THE A.T.P. ORBITER AT M=10.3	STATIC STABILITY AND PERFORMANCE CHARACTERISTICS OF THE A.T.P. ORBITER AT M=10.3	AERODYNAMIC CHARACTERISTICS OF THE ROCKWELL INTERNATIONAL ORBITER DA3 AT MACH NUMBERS FROM 0.6 TO 2.0	DETERMINATION OF THE AERODYNAMIC INTERFERENCE RETWEEN THE SPACE SHUFT.E ORBITER, EXTERNAL TANK, AND SOLID ROCKET BOOSTER ON A O.064 SCALE ASCENT CONFIGURATION	SPACE SHUTTLE (ATP CONFIGURATION) ABORT STAGING INVESTIGATION	AERODYNAMIC CHARACTERISTICS OF A 162-INCH DIAMETER SOLID ROCKET BOOSTER WITH AND WITHOUT STRAKES	EFFECT OF GASEOUS AND SOLID SIMULATED JET PLUMES ON AN 040A SPACE SHUTTLE
NASA SERIES NUMBER	MAS	LA1	MA2	MA1	0A1	IA1A	0A4	MA4	MA4	DA3	IA 1B	MA9F	SA1F	641
NASA CR NUMBER	128,750	128.752	128,754	120,082	120,070	120,088	128,760	128,751	128,751	128,761	120,060	120,089	120,090	6
DMS-DR REPORT	2001	2002	2003	2004	2005	9007 B≃2	2007	2008	2008 R-01	2009	2010	2011	2012	

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SPACE	RESULTS OF SCALE MODEL	IN THE VOUGHT AERONAUTICS 4X4FT HS IP SHITTIF INTECBATED VEHICLE	AERODYNAMIC RESULTS OF SEPARATION TESTS ON THE VOUGHT AERONAUTICS AFT X AFT HSWT ON A .0075 SCALE ROCKWELL INTERNATIONAL-ATD SUITTLE TATTECTS.	RESULTS OF INVESTIGATIONS ON A O.0405 SCALE MODEL ATP VERSION OF THENR-SSV ORBITER IN THE NORTH AMERICAN AFRONANTICAL LARGESTORY OF SCALE	RESULTS OF INVESTIGATIONS ON A O 0405 SCALE MODEL PRR VERSION OF THENR-SSV ORBITER IN THE NORTH AMERICAN AERONAUTICAL LARDRATORY IN THE NORTH AUTICAL LARDRATORY IN THE NORTH AMERICAN AERONAUTICAL LARDRATORY IN THE NORTH AUTICAL LARDRATORY AERONAUTICAL LARDRATORY IN THE NORTH AUTICAL LARDRATORY AUTICAL LARDRATORY AUTICAL LARDRATORY AUTICAL LARDRATORY AUTI	CROSS WIND LOADS INVESTIGATION OF A .O1925 SCALE MODEL OF THE ATP-SSV LAUNCH	LOW SPEED LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF A PRPRR SHUTTLE ORBITER CONFIGURATION	LOW SPEED INVESTIGATION OF THE PRR PLANFORM WING BOTH IN AND OUT OF GROUND EFFECT	PRESSURE LOADS AND AERODYNAMIC FORCE INFORMATION FOR THE -89A SPACE SHUTTLE ORBITER CONFIGURATION	PRESSURE LOADS AND AERODYNAMIC FORCE INFORMATION FOR THE -89A SPACE SHUTTLE ORBITER CONFIGURATION	AERODYNAMIC CHARACTERISTICS OF THE ROCKWELL INTERNATIONAL -89B SPACE SHUTTLE ORBITER CONFIGURATION	STATIC AERODYNAMIC CHARACTERISTICS AND DIL FLOW AND ELECTRON BEAM RESULTS OF O.005 SCALE MODEL LANGLEY CONCEPT SPACE SHUTTLE ORBITER(LO-100) AT A MACH NUMBER OF 20.3	WIND TUNNEL TEST OF THE O.019 (040A) JET PLUME SPACE SHUTTLE INTEGRATED VEHICLE IN THE ARC 11-FOOT UNITARY WIND TIMBEL	AERODYNAMIC CHARACTERISTICS OF A 142-INCH DIAMETER SOLID ROCKET BOOSTER WITH
NASA SERIES NUMBER	0A7	IA4	IA4	DA2	OAS	IAG	0A6.	6 V Q	0A45	0A45	0410	LA2	IA7	SA3F
		V-01	V-02						V-01	V -02				
NASA CR NUMBER	128,753	120.091	120,091	120,092	123,851	128,755	128,756	128,757	128,758	128,758	128,759	128,763	128,766	128,767
DMS-DR REPORT NUMBER	2014	2015	2015	2016	20:17	2 018	20:19	2020:	2021	202 1	2022	2023	2024	2025

SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE ARODYNAMIC INVESTIGATIONS ON A 0.004 SCALE MODEL MCR 0074 BASELINE SPACE SHUTTLE LAUNCH VEHICLE AT MACH NO. BETWEEN 0.6 AND 4.96	AN INVESTIGATION IN THE NASA MSFC 14-INCH TRISONIC WIND LUNGELY VERSION OF THE THE PRESSURE DISTRIBUTION OVER THE COMPONENTS OF A 0.004 SCALE VERSION OF THE ROCKWELL MCR 0074 BASELINE SHUTTLE ASCENT CONFIGURATION (1A32FB)	AN INVESTIGATION IN THE NASA MSFC 14-INCH TRISONIC WIND LUNNEL VERSION OF THE THE PRESSURE DISTRIBUTION OVER THE COMPONENTS OF A 0.004 SCALE VERSION OF THE ROCKWELL MCR 0074 BASELINE SHUTTLE ASCENT CONFIGURATION (1A32F)	AN INVESTIGATION IN THE NASA MSFC 14-INCH TRISONIC WIND TOWNER VERSION OF THE THE PRESSURE DISTRIBUTION OVER THE COMPONENTS OF A 0.004 SCALE VERSION OF THE ROCKWELL MCR 0074 BASELINE SHUTTLE ASCENT CONFIGURATION (1832F)	TRIPLE BALANCE TEST OF THE PRR BASELINE SPACE SHUTTLE CONFIGURATION (TWT 570) TRIPLE BALANCE TEST OF THE PRR BASELINE SPACE SHUTTLE CONFIGURATION (TWT 570) TRIPLE BALANCE TEST OF THE PRR BASELINE SPACE SHUTTLE CONFIGURATION OF A RESULTS OF A STATIC STABILITY AND CONTROL EFFECTIVENESS INVESTIGATION OF A RESULTS OF A STATIC STABILITY AND CONTROL EFFECTIVENESS INVESTIGATION OF A OCH SCALE SA OFBITER IN THE MARSHALL SPACE FLIGHT CENTER TRISONIC WIND	AERODYNAMIC CHARACTERISTICS OF VARIOUS AFT-END CONFIGURATIONS OF THE ROCKWELL INTERNATIONAL -898 SPACE SHUTTLE ORBITER	HYPERSONIC PERFORMANCE, STABILITY AND CONTROL CHARACTERS AND STABILITY AND MODEL OF A LANGLEY CONCEPT SPACE SHUTTLE OPRITER AND MODEL OF A LANGLEY CONCEPT SPACE SHUTTLE OPRITER CENTER UNITARY PLAN WIND	RESULTS OF TESTS DA12 AND 1A9 IN THE AMES RESEARCH VEHICLE 2A TO DETERMINE TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER DATA TO DETERMINE TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS	RESULTS OF TESTS DA12 AND 1A9 IN THE AMES RESEARCH CENIEK UNITARY TO DETERMINE TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS
NASA SERIES NUMBER	1A32FB	IA32FB	1A32FB	IA31FB IA31FB OA47	OA 1-4	LA3	1A9A, B, C/OA12A. C	IA9A.B.C/0A12A.C	1A9A.B.C/0A12A.C
	V-01	V-02	¥-03	V-01			V-01	V-02	V-03
NASA CR NUMBER	141,807	141,808	141,809	134, 434 134, 436 128, 765	123.768	128,769	128,794	128,794	128,794
DMS-DR REPORT NUMBER	2027	2027	2027	8 202 2028 3 204 8 24	2030	2034	2032	2032	2032

DMS-DR REPORT NÜMBER	NASA CR NUMBER		NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2032	128,794	V-04	1A9A.B.C/0412A.C	RESULTS OF TESTS DA12 AND 1A9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN O 050-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS
2032.	128,794	V-0 5	IA9A.B.C/OA12A.C	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS
2032	128,794	90-	IA9A.B.C/0A12A.C	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN 0.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS
2032	128.794	V-07	IA9A.B.C/0A12A.C	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS
5035 B= 5	128,794	N-08	IA9A.B.C/0A12A.C	RESULTS OF TESTS 0A12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN 0.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS
2032	128,794	60-7	IA9A.B.C/0A12A.C	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN 0.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A 10 DETERMINE AERODYNAMIC LOÁDS
2032	128,794	V-10	IA9A.B.C/DA:2A.C	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS
2032	128,794	V-11	IA9A.B.C/DA12A.C	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS
7032	128.794	V-12	IA9A,B.C/0A12A.C	RESULTS OF TESTS 0A12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS
	128,794	V-13	1A9A,B,C/0A12A,C	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS.

SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE	RESULTS OF TESTS DA12 AND 1A9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN 0.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODÝNAMIC LOADS	RESULTS OF TESTS DA12 AND 1A9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS DN AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS	RESULTS OF TESTS DA12 AND IA9 IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS ON AN 0.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 2A TO DETERMINE AERODYNAMIC LOADS	SUPERSONIC STABILITY AND CONTROL CHARACTERISTICS OF A LANGLEY CONCEPT SPACE SHUTTLE ORBITER AT MACH 1.5 TO 4.63	AERODYNAMIC AND FLOW VISUALIZATION STUDIES ON A SPACE SHUTTLE CONCEPT WITH A DOUBLE DELTA WING ORBITER AT A MACH NUMBER OF 20.3	THERMAL PROTECTION SYSTEM GAP HEATING RATES OF THE ROCKWELL INTERNATIONAL FLAT PLATE HEAT TRANSFER MODEL	AERODYNAMIC AND FLOW-VISUALIZATION STUDIES ASSOCIATED WITH VARIATIONS IN THE GEOMETRY OF THE FORWARD PORTION OF IRREGULAR PLANFORM WINGSAT A MACH NUMBER OF 20.3	RESULTS OF INVESTIGATIONS ON A O.015-SCALE 140A/B CONFIGURATION SPACE SHIFFLE VEHICLE ORBITER MODEL (49-0) IN THE LTV 4 BY 4-FOOT HIGH SPEED WIND TUNNET		RESULTS OF WIND TUNNEL TESTS AT MACH 5 ON THE OOA SCALE MODEL 2A CONFIGURATION SPACE SHUTTLE TO DETERMINE PROXIMITY EFFECTS AND ORBITERCONTROL EFFECTIVENESS DURING ORBITER/EXTERNAL TANK ABORT SEPARATION
NASA SERIES NUMBER		IA9A.B.C/0A12A.C R	IA9A.B.C/DA12A,C RI	IA9A.B.C/DA12A.C RE TL	IA9A.B.C/DA12A.C RE	LA4 SU	LA22 AE	OH2A/OH2B TH	LAS AEROI GEOM 20.3	DA84 RESULTS	DA 16. RESULTS SHUTTLE	IAGA RES CON EFF
NASA CR NUMBER	128,794 V-14	128,794 V-15	128,794 V-16	128,794 V-17	128,794 V-18	277.2	764	07.7	775	405	793	120
DMS-DR NASA REPORT CR NUMBER NUMBE	2032 128	2032 128	2032 128		Ó 2032 128.	2033 128,772	2034 128,764	2035 134,077	2036 128,775	2037 134,405 i	2038 128,793	2039 134,071

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CHRYSLER DATA MANAGEMENT SERVICES(DMS) SPACE SHUTTLE WIND TUÑNEL TEST PROGRAM DATA REPORT DOCUMENTATION

DMS-DR REPORT NUMBER	NASA CR NUMBER		NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2040	128,773		LA6	S EFFECTS ON THE TR 98-139 ORBITER
2041	128.781		LAZA	TRANSONIC AERODYNAMIC CHARACTERISTICS ASSICIATED WITH VARIATIONS IN THE GEOMETRY OF THE FORWARD PORTION OF IRREGULAR PLANFORM WINGS
2042	134,087		1A52	RESULTS OF FLOW VISUALIZATION STUDIES IN THE NASA/MSFC 14 X 14 INCH TRISDNIC WIND TUNNEL ON A .COA SCALE MODEL (34-0) SPACF SHUTTLE ORBITER AND INFEGRATED VEHICLE
2043	128,770		LA16	HEAT TRANSFER DATA TO CAVITIES BETWEEN SIMULATED RSI TILES AT MACH 8
2044	128,786		DA 1.1A	RESULTS OF INVESTIGATIONS ON A O.015-SCALE MODEL 2A CONFIGURATION OF THE ROCKWELL INTERNATIONAL SPACE SHUTTLE ORBITER IN THE NASA/AMES RESEARCH CENTER 3.5 FOOT HYPERSONIC WIND TUNNEL
- ¹⁵ - 7	128,779		DA 18	RESULTS OF INVESTIGATIONS (0A18) OF A C.O4OS SCALE MODEL OF THE 2A AND 3 SPACE SHUTTLE ORBITER CONFIGURATIONS IN THE NORTH AMERICAN AERONAUTICAL LASCRATORY LOW SPEED WIND TUNNEL AT M = 0.26 AND 0.16
2046	128,776		LA17	AERODYNAMIC STABILITY AND CONTROL CHARACTERISTICS OF A LANGLEY CONCEPT SPACE SHUTTLE ORBITER (LO-100) AT MACH NUMBERS OF O.35 TO 1.2
2047	134,086		LA31	EFFECT OF WALL TO TOTAL TEMPERATURE RATIO VARIATION ON HEAT TRANSFER
2048	134,104		1A \$2B	WIND TUNNEL TEST OF THE O.019 (2A CONFIGURATION) JET PLUME SPACE SHUTTLE INTEGRATED VEHICLE IN THE ARC 9- BY 7-FOOT UNITARY WIND TUNNEL
2049	128,771		DH40	AERODYNAMIC HEATING OF A SPACE SHUTTLE DOUBLE DELTA WING ORBITER AT MACH NUMBER 8.0
2050	128,790		0A43	WIND TUNNEL TEST OF THE O.15-SCALE ROCKWELL INTERNATIONAL SPACE SHUTTLE VEHICLE ORBITER IN THE AMES 6- BY 6-FOOT SUPERSONIC WIND TUNNEL
205.1	128,774		SASF	AERODYNAMIC CHARACTERISTICS OF A 142-INCH DIAMETER SOLID ROCKET BÖDSTER (CONFIGURATIONS 89B AND 139)
2052	128,791		LA 10	SUPERSONIC AERODYNAMIC CHARACTERISTICS ASSOCIATED WITH VARIATIONS INTHE GEOMETRY OF THE FORWARD PORTION OF IRREGULAR PLANFORM WINGS
2053	128,792	V-01	0A218	EXPERIMENTAL INVESTIGATIONS OF AN O.0405 SCALE SPACE SHUTTLE CONFIGURATION 3 ORBITER TO DETERMINE SUBSONIC STABILITY CHARACTERISTICS (0A21)

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DMS-DR REPORT NUMBER	NASA CR: NUMBER:	† 1 1 1 1	NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2053	128.792	V -02		EXPERIMENTAL INVESTIGATIONS OF AN O.O405 SCALE SPACE SHUTTLE CONFIGURATION ORBITER TO DETERMINE SUBSONIC STABILITY CHARACTERISTICS (0A21)
2054	128, 796	······	LA8A/LA8B	SURFACE ROUGHNESS EFFECTSON THE SUPERSONIC AERODYNAMICS OF THE ROCKWWELL INTERNATIONAL 0898-139 GRBITER
2055	128.780	V-01	0A48	STATIC STABILITY AND CONTROL EFFECTIVENESS OF MODELS 12-0 AND 34-0 OF THE VEHICLE 3 CONFIGURATIONS
2055	128,780	V-02	DA43	STATIC STABILITY AND CONTROL EFFECTIVENESS OF MODELS 12-0 AND 34-0 OF THE VEHICLE 3 CONFIGURATIONS
2055.	128.780	V-03	0148	STATIC'STABILITY AND CONTROL EFFECTIVENESS OF MODELS 12-0 AND 34-0 OF THE VEHICLE 3 CONFIGURATIONS
2056 8	128.782		,A9	SURFACE ROUGHNESS EFFECTS ON THE SUBSONIC AERODYNAMICS OF THE ROCKWELL INTERNATIONAL 0898-139 ORBITER
2057	134, 411		0844	RESULTS OF AN EXPERIMENTAL AERODYNAMIC INVESTIGATION TO OBTAIN STATIC STABILITY AND CONTROL CHARACTERISTICS OF THE SSV CONFIGURATIONS 2A(VLTO-000089B) MODEL 1 AND 3 (VLTO-000139B) MODEL 2 ORBITERS AT MACHNUMBERS OF 2.5, 3.9, AND 4.6 IN THE NASA LARC 4X4-FOOT UPWIT (DA44)
2058	134.079		OA 17	RESULTS OF THE O.015 SCALE SPACE SHUTTLE VEHICLE ORBITER TEST (0417)IN THE NASA LOW TURBULENCE PRESSURE JUNNEL
2059	128, 798		OA 11B	INVESTIGATIONS OF THE SPACE SHUTTLE ORBITER 2A CONFIGURATION O.015-SCALE MODEL IN THE NASA AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC WIND TUNNEL AT MACH NUMBERS 5. 7 AND 10
2060	134,091		0.458	RESULTS OF AN AEGODYNAMIC FORCE AND MOMENT INVESTIGATION OF AN O.015-SCALE CONFIGURATION 3 SPACE SHUTTLE ORBITER IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TUNNEL (0858)
206.1	128,789		OAGB	SUBSONIC, TRANSONIC, AND SUPERSONIC STABILITY AND CONTROL CHARACTER-ISTICS OF THE -147B SPACE SHUTTLE ORBITER
2062	134,117	V-01	IA13	AERODYNAMIC RESULTS OF A SEPARATION EFFECTS TEST CONDUCTED IN THE AEDS 40X 40 INCH TUNNEL A FACILITY ON THE ROCKWELL INTERNATIONAL LAUNCH CONFIGURATION 3 INTEGRATED VEHICLE

DMS-DR: REPORT NUMBER:	NASA CR. NUMBER		ې ښ ښ	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2062	134, 118	v-02	IA 13	AERODYNAMIC RESULTS OF A SEPARATION EFFECTS TEST CONDUCTED IN THE AEDC 40 X 40- INCH TUNNEL A FACILITY ON THE ROCKWELL INTERNATIONAL LAUNCH CONFIGURATION 3 INTEGRATED VEHICLE
2062	141,804	v -03	1A13	AERODYNAMIC RESULTS OF A SEPARATION EFFECTS TEST CONDUCTED IN THE AEDG 40 X 40 INCH TUNNEL A FACILITY ON THE ROCKWELL INTERNATIONAL LAUNCH CONFIGURATION 3 INTEGRATED VEHICLE
2063	128,788		Ia37/Ia48	RESULTS OF TESTS IN THE MSFC 14X14 INCH TRISONIC WIND TUNNEL ON A .004 SCALE MODEL OF THE ROCKWELL INTERNATIONAL SPACE SHUTTLE VEHICLE 3, (INTEGRATED CONFIGURATION)
2064	141,814	V-01	1436	WIND TUNNEL TEST OF THE O.019 SCALE SPACE SHUTTLE INTEGRATED VEHICLE(MODEL 14-0TS) IN THE CALSPAN 8-FOOT TRANSONIC WIND TUNNEL (1A36)
9 2064	141,816	. o.	1A36	WING TUNNEL TEST OF THE 0.019 SCALE SPACE SHUTTLE INTEGRATED VEHICLE(MODEL 14-075) IN THE CALSPAN B-FOOT TRANSONIC WIND TUNNEL (1A36)
2065	141,518	V-04	1A 12C	WIND TUNNEL TESTS OF AN O.019-SCALE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA AMES 8 X 7-FODT UNITARY WIND TUNNEL(1A12C)
2065	141,519	V-02	14120	WIND TUNNEL TESTS OF AN O.019-SCALE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA AMES 8 X 7-FOOT UNITARY WIND TUNNEL(1A12C)
2065	141,520	· • • • • • • • • • • • • • • • • • • •	1A12C.	WIND TUNNEL TESTS OF AN O.019-SCALE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA AMES 8 X 7-FOOT UNITARY WIND TUNNEL(1A12C)
2066	128,783		LAN	HYPERSONIC PERFORMANCE, STABILITY AND CONTROL CHARACTERISTICS OF A .0075 SCALE MODEL ROCKWELL INTERNATIONAL 089-139 ORBITER CONFIGURATION
2067	128.777		052	FLUTTER TESTS (052) OF THE SHUTTLE ORBITER FIN/RUDDER MODEL 24-0
2068	128, 797		A17A0	EFFECTS OF THE AIR BREATHING PROPULSION SYSTEM ON SPACE SHUTTLE ORBITER SUBSONIC STABILITY AND CONTROL CHARACTERISTICS (0A71A)
2069	134.074		MA7 '	EFFECTS OF REACTION CONTROL SYSTEM JET-FLOW FIELD INTERACTIONS ON A 0.015 SCALE MODEL SPACE SHUTTLE ORBITER AERODYNAMIC CHARACTERISTICS
2070	128,787		LA23	EFFECT OF GASEDUS AND SOLID SIMULATED JET PLUMES ON AN O40A SPACE SHUTTLE LAUNCH CONFIGURATION AT MACH NUMBERS FROM 1.6 TD 2.2

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DMS-DR REPORT NUMBER	NASA CR NUMBER	1 1 1 0 1 1	NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TU
2071	128,799		0A23	RESULTS OF CONFIGURATIONNEL (DA2
2072	134,072		IA3:1FC	MISALIGNMENT STUDIES ON SPACE SHUTTLE INTEGRATED VEHICLE
2073	134.070		0A70	EFFÉCTS OF REACTION CONTROL SYSTEM VET SIMULATION ON THE STABILITY AND CONTROL CHARACTERISTICS OF A 0.015 SCALE SPUTE MODEL TESTED IN THE LANGLEY RESEARCH CENTER UNITARY PLAN WIND TUNNEL
2074	134,414		0A57A	EFFECTS OF THE AIR BREATHING ENGINE PLUMES ON SSV ORBITER SUBSONIC WING PRESSURE DISTRIBUTIONS
2075	128.784		OH4 1.	INVESTIGATION OF CONFIGURATION EFFECTS ON ENTRY HEATING DISTRIBUTIONS AT MACH = 8.0 (0441)
9202 9-10	128,785		0H41A	INVESTIGATION OF CONFIGURATION EFFECTS ON ENTRY HEATING DISTRIBUTIONS AT MACH NO = 8.0 (DH41A)
2077	134,095	‡0- A	1A29/DA63	RESULTS OF TESTS DAGS AND 1A29 ON AN O.045-SCALE MODEL OF THE SPACE SHUTTLE CONFIGURATION 140 A/B IN THE NASA/ARC 6- BY 6-FOOT TRANSONIC WIND TINNEL
2077	134,099	V-02	IA29	RESULTS OF TESTS DA63 AND 1A29 ON AN O.015-SCALE MODEL OF THE SPACE SHUTTLE CONFIGURATION 140 A/B IN THE NASA/ARC 6- BY 6-FOOT TRANSONIC WIND TIMMEN
2077	134, 100	N-03	0463	RESULTS OF TESTS DAGS AND 1A29 ON AN O.015-SCALE MODEL OF THE SPACE SHUTTLE CONFIGURATION 140 A/B IN THE NASA/ARC 6- BY 6-FOOT TRANSONIC WIND TINNE!
2078	128,795		IA10	WIND TUNNEL TEST OF THE O.010-SCALE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA-AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (1A10)
2079	134,083		LA15	EFFECTS OF SURFACE ROUGHNESS ON THE AERODYNAMIC CHARACTERISTICS OF THE MODIFIED 089 B SHUTTLE ORBITER AT MACH 6 (LA15)
2080	134.416	V-01	0A57B	EFFECTS OF AIR BREATHING ENGINE PLUMES ON SSV ORBITER SUBSONIC WING PRESSURE DISTRIBUTION
2080	134,417	V-02	0A57B	EFFECTS OF AIR BREATHING ENGINE PLUMES ON SSV ORBITER SUBSONIC WING PRESSURE DISTRIBUTION
2081	141,580	V -01	0A69	LANDING PRESSURE LOADS OF THE -140 A/B SPACE SHUTTLE ORBITER DETER- MINED IN THE NRLAD LOW SPEED WIND TUNNEL (0A69)

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SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE	PRE AD LI	EFFECTS OF REACTION CONTROL SYSTEM JET SIMULATION ON THE STABILITY AND CONTROL CHARACTERISTICS OF A 0.015-SCALE SPACE SHUTTLE ORBITER MODEL IN THE AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC WIND THANK!	RESULTS OF INVESTIGATIONS (DA20) ON A 0.015-SCALE 140 A/B CONFIGURATION SPACE SHUTTLE VEHICLE ORBITER MODEL IN THE NASA/LANGLEY RESEARCH CENTER UNITARY PLAN	AIRLDADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLEVEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-0TS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE 0.6 TO 1.4 (11.4A)	AIRLDADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLEVEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-0TS) IN THE ARC 11-FODT UNITARY PLAN WIND TUNNEL FOR MACH RANGE 0.6 FO 1.4 (1A14A)	AIRLOADS INVESTIGATIONS OF AN O.030-SCALE'MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-OTS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE O.6 TO 1.4 (1A14A)	AIRLOADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-DTS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE O.6 TO 1.4 (TA14A)	AIRLOADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-DIS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE O.6 TO 1.4 (1414A)	AIRLDADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-DTS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE 0.6 TO 1.4 (1A14A)	AIRLOADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-OTS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE 0.6 TO 1.4 (1414A)	AIRLDADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-0TS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE 0.6 TO 1.4 (1A14A)
NASA SERIES NUMBER	0A69	0A73	0A20A	IA 14A	IA14A	IA14A	IA14A	A	IA14A	IA14A	IA14A
1 1 1 1	V-02			V-01	V-02	V-03	>	-05 -05	90	V-07	80- ^
NASA CR CR NUMBER	141,581	128,800	134,081	134,443	134.444	143, 445	143,446	143,447	143.448	143,449	143,450
DMS-DR REPORT NUMBER	2081	2082	2083	2084	8-11	2084	. 2084	2084	2084	2084	2084

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DMS-DR REPORT NUMBER	NASA CR NUMBER		A 1es Ber	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2084	141,501	60- x	IA14A	IARLOADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-0TS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE O.6 TO 1.4 (IA14A)
2084	141,502	V-10	IA14A	AIRLOADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-0TS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE O.6 TO 1.4 (1A14A)
2084	141,503	V-11	IA14A	AIRLOADS INVESTIGATIONS OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-OTS) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH RANGE O.6 TO 1.4 (1A14A)
- 2085	167,344		0H10/1H2	REPORT OF PRESSURE DISTRIBUTION TESTS OF THE O.010-SCALE SPACE SHUTTLE VEHICLE MODEL (26-DTS) IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TUNNEL (TESTS OH1O AND IH2)
9802 3~12	134,078		0A71C	EFFECTS OF THE SIX ENGINE AIR BREATHING PROPULSION SYSTEM ON SPACE SHUTTLE ORBITER SUBSONIC STABILITY AND CONTROL CHARACTERISTICS
2087	134,116		SA 10F	EFFECT OF ENGINE SHROUD CONFIGURATION ON THE STATIC AERODYNAMIC CHARACTERISTICS OF A 0.00563 SCALE 142-INCH DIAMETER SOLID ROCKET BODSTER
2088	134, 105		SA2FA/SA2FB	AERODYNAMIC CHARACTERISTICS OF A 142-INCH DIAMETER SOLID ROCKET BOOSTER (CONFIGURATION 139)
2089	134,082		0A25	RESULTS OF INVESTIGATIONS ON AN O.015-SCALE CONFIGURATION 140A/B SPACE SHUTTLE ORBITER MODEL (49-0) IN THE NASA/LANGLEY RESEARCH CENTER 8-FUOT TRANSONIC PRESSURE TUNNEL (0A25)
2090	134,080		LA8C	SUPERSONIC PERFORMANCE, STABILITY AND CONTROL CHARACTERISTICS OF A O. 01875 SCALE MODEL ROCKWELL INTERNATIONAL 0898-1398 ORBITER CONFIGURATION (LASC)
2091	141,512		LA7B	SUBSONIC AND TRANSONIC AERODYNAMIC CHARACTERISTICS ASSOCIATED WITH VARIATIONS IN THE GEOMETRY OF THE FORWARD PORTION OF IRREGULAR PLANFORM WINGS ON A .01875 SCALE LO-100 LÂNGLEY CONCEPT SPACE SHUTTLE ORBITER IN THE LANGLEY 8-FOOT TPT (LA78)
2092	TM-X71968		0A72	HYPERSONIC STABILITY AND CONTROL CHARACTERISTICS OF A O.004 SCALE MODEL (34-0) ROCKWELL INTERNATIONAL SPACE SHUTTLE ORBITER VEHICLE 3 CONFIGURATION (DA-72)
2093	134,090		1A37B	EFFECT OF EXTERNAL TANK NOSE SHAPE ON THE ROCKWELL INTERNATIONAL SPACE SHUTTLE VEHICLE 3. (INTEGRATED CONFIGURATION (1A37B)

DMS-DR REPORT	NASA CR NUMBER		NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2094	134,073	-	0S.1	FLUTTER TESTS (0S1) OF THE 0.02-SCALE ORBITER WING ELEVON SEMI-SPAN MODEL 23-0
2095	134,404		0A49	AN INVESTIGATION OF THE STABILITY AND CONTROL CHARACTERISTICS OF THE VEHICLE 4 CONFIGURATION
2096	134, 101		0H13	HEAT TRANSFER TESTS OF AN O.006-SCALE THIN SKIN SPACE SHUTTLE THERMOCOUPLE MODEL (41-0.) IN THE LANGLEY RESEARCH CENTER VARIABLE DENSITY TUNNEL AT M=8
2097	134,102		0A62A	CONTINUED INVESTIGATIONS IN THE NAME LOW SPEED WIND TUNNEE INTO THE EFFECTS OF THE AIR BREATHING PROPULSION SYSTEM ON ORBITER SUBSONIC STABILITY AND CONFROL CHARACTERISTICS (0462A)
2098	134,096		7H15	HEAT TRANSFER TESTS OF A 0.006-SCALE THIN-SKIN SPACE SHUTTLE MODEL (41-OFS) IN THE AMES 3.5-FOOT HWT AT M=5.3
66 00 B-13	134,419	V-01	0H4B	DATA REPORT FOR TESTS ON THE HEAT TRANSFER EFFECTS OF THE O.0175-SCALE ROCKWELL INTERNATIONAL SPACE SHUTTLE VEHICLE MODEL 22-OT IN THE AEDC 50-INCH B WEND TUNNEL
2099.	134,438	V-02	0Н4В	DATA REPORT FOR TESTS ON THE HEAT TRANSFER EFFECTS OF THE O.0175-SCALE ROCKWELL INTERNATIONAL SPACE SHUTTLE VEHICLE MODEL 22-OT IN THE AEDC 50-INCH WIND TUNNEL '
2099.	134,439	6 -03	OH48	DATA REPORT FOR TESTS ON THE HEAT TRANSFER EFFECTS OF THE O.0175-SCALE. ROCKWELL INTERNATIONAL SPACE SHUTTLE VEHICLE MODEL 22-0T IN THE AEDC 50-INCH B WIND TUNNEL
2100	134,075		онэм/онзв	PHASE CHANGE PAINT TESTS ON ROCKWELL ORBITER/TANK AND ORBITER ALONE CONFIGURATIONS
2101	134.076		0H42A/0H42B/0H42C	HEAT TRANSFER PHASE CHANGE PAINT TEST (OH-42) OF A ROCKWELL INTERNATIONAL SSV ORBITER IN THE NASA/LRC MACH 8 VARIABLE DENSITY WIND TUNNEL
2102:	134.089		1A15	RESULTS OF INVESTIGATIONS ON A O.O10-SCALE MODEL OF THE CONFIGURATION 3 SPACE SHUTTLE ORBITER AND EXTERNAL TANK IN THE NASA/AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC WIND TUNNEL (1A15)
2.103:	134,,094		IA62F	WIND TUNNEL TEST RESULTS OF FAIRINGS ON A O.OOA ŚCALE MODEL ROCKWELLSPACE SHUTTLE INTEGRATED VEHICLE AERODYNAMIC CHARACTERISTICS AT MACHNUMBERS FROM O.6 TO 4.96 (1A62F)

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SPACE SHUTTLE WIND TUNNEL TEST PROGRAM
DATA REPORT DOCUMENTATION

DMS-DR	NASA		NASA Series	
NUMBER	NUMBER	1	NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPURI TITLE
2104	134,112	V-01	04628	INVESTIGATION OF SPACE SHUTTLE ORBITER SUBSONIC STABILITY AND CONTROL CHARACTERISTICS IN THE NAAL LOW SPEED WIND TUNNEL (04628)
2:104	134,113	V-02	0A62B	INVESTIGATION OF SPACE SHUTTLE ORBITER SUBSONIC STABILITY AND CONTROL CHARACTERISTICS IN THE NAAL LOW SPEED WIND TUNNEL (04628)
23105	144,594	-	IH17	FRANSITION HEATING RAIES OBTAINED ON A MATED AND ISOLATED O OOG SCALE MODEL (41-OT) SPACE SHUTTLE ORBITER AND EXTERNAL TANK IN THE NASA/LARC VARIABLE DENSITY HYPERSONIC TUNNEL
2.106	TM-X72630		. LA14A/LA14B	SUPERSONIC DYNAMIC STABILITY DERIVATIVES OF A MODIFIED OB9B SHUTTLE ORBITER
2.107	TM-X72631		LA20	SUBSONIC AND TRANSONIC DYNAMIC STABILITY DERIVATIVES OF A MODIFIED 0898 SHUTTLE ORBITER
B-1	134,084		1A35/0A64	RESULTS OF TESTS (DAG4 AND 1A35) OF AN O.015-SCALE MODEL (36-DTS) OF THE SPACE SHUTTLE CONFIGURATION 140A/B IN THE NASA/LARC UNITARY PLAN WIND TUNNEL
2109	141.527		OH45	ENTRY HEAT TRANSFER TESTS OF THE OLOGO-SCALE SPACE SHUTTLE (-147B) ORBITER MODEL (50-0) IN THE LANGLEY RESEARCH CENTER FREON TUNNEL AT MACH 6 (DH45)
2110	144,589		1118	HEAT TRANSFER TESTS OF AN O.006-SCALE THIN-SKIN SPACE SHUTTLE THERMOCOUPLE MODEL (41-OI) IN THE LANGLEY RESEARCH CENIER FREON TUNNEL AT M = 6 (1H18):
2111	134,435		SA26F	REENTRY AERODYNAMIC CHARACTERISTICS OF A SPACE SHUTTLE SOLID ROCKET BODSTER MODEL 449 TESTED IN MSFC 14 X 14 INCH TWT
2.12	134,401		IA5.7	AERODYNAMIC RESULTS OF WINT TUNNEL SEPARATION TESTS ON A 0.01-SCALE MODEL (32-0TS) SPACE SHUTTLE INTEGRATED VEHICLE (1857)
2,113	134,111		0A85.	EFFECTS OF REACTION CONTROL SYSTEM JET FLOW FIELD INTERACTIONS ON THE AERODYNAMIC CHARACTERISTICS OF A O.010 SCALE SPACE SHUTTLE ORBITER MODEL IN THE LANGLEY RESEARCH CENTER 31-INCH CFHT
41.12	134,098		0A86	AERODYNAMIC INVESTIGATIONS INTO VARIOUS LOW SPELD L/D IMPROVEMENT DEVICES ON THE 140A/B SPACE SHUTTLE DRBITER CONFIGURATION IN THE RI NAAL WIND TUNNEL CARE.)
2.115	134.085		0A87	RESULTS OF INVESTIGATIONS ON A 0.015-SCALE MODEL (49-0) OF THE SPACE SHUTTLE ORBITER IN THE NASA/AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (0A87)

DMS-DR REPORT NUMBER	NASA CR NUMBER	ES.	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2116	134,888	0.491	EFFECT OF THE SIX ENGINE AIR BREATHING PROPULSION SYSTEM ON SPACE SHUTTLE ORBITER SUBSONIC AND TRANSONIC STABILITY AND CONFROL CHARACTERISTICS (0A91)
2117	147.617	OH14	TRANSITION HEATING RATES DETERMINED ON A O.OOG SCALE SPACE SHUTTLE ORBITER MODEL (ND. 50-D) IN THE NASA/LARC MACH 8 VAPIABLE DENSITY WIND TUNNEL TEST (0H14)
2118	134,108	1845	RESULTS OF TRANSONIC WIND TUNNEL TESTS ON AN O.015 SCALE SPACE SHUTTLE MATED VEHICLE MODEL(67-0TS) IN THE LARC 8-FOOT JPT (1A41)
2,119	134,109	1A42A/1A42B	SUPERSONIC TESTS OF AN O.015-SCALE SPACE SHUTTLE MATED VEHICLE MODEL (67-0TS) IN THE LARC UPWI TO DBIAIN AERODYNAMIC FORCE DATA
2120	134,426	0A 106	WIND TUNNEL TESTS OF AN O.015-SCALE CONFIGURATION 140A/B SPACE SHUTTLE ORBITER MODEL (67-0) IN THE NASA/LRC 8-FOOT TPT TO OBTAIN TRANSONIC AERODYNAMIC FORCE DATA (DA106)
15 -15	TASK CANCELLED	LA38A	TRANSDNIC AERODYNAMIC INVESTIGATION OF CONFIGURATION MODIFICATIONS TO RI-140A/B FOR EXTENDING CENTER OF GRAVITY RANGE
2122	134,424	1869	INVESTIGATION OF SPACE SHUTTLE LAUNCH VEHICLE EXTERNAL TANK NOSE CONFIGURATION EFFECTS (MODEL 67-07S) IN THE ROCKWELL INTERNATIONAL 7- BY 7-FOOT TRISONIC WIND TUNNEL (1869)
2123.	141,504	1.453	RESULTS FROM INVESTIGATIONS IN THE NASA/MSFC TWT ON A O.CO4 SCALE MODEL SPACE SHUTTLE LAUNCH VEHICLE (MODEL 13P-OTS) TO DETERMINE GAS SUPPLY STRUT EFFECT ON MODEL PRESSURE ENVIRONMENT (1A53)
2124	134,093	1A16/0A26	RESULTS OF TESTS DA26 AND IA16 IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TUNNEL ON A O.015 SCALE MODEL (36-OTS) OF THE SPACE CONFIGURATION 140A/B TO OBTAIN PRESSURES FOR VENTING ANALYSIS
2.125	134,409	DABB	HYPERSONIC STABILITY AND CONTROL CHARACTERISTICS AND REYNOLDS NUMBEREFFECTS OF THE ROCKWELL SSV 140 A/B ORBITER CONFIGURATION
2126	TASK CANCELLED	LA25	EFFECTS OF REACTION CONTROL SYSTEM JET SIMULATION ON THE HYPERSONIC PERFORMANCE, STABILITY AND CONTROL CHARACTERISTICS OF A . O1 SCALE ROCKWELL INTERNATIONAL 1398 ORBITER CONFIGURATION
2.127	TM-X71954	LA35	REYNDLDS NUMBER EFFECTS AT MACH NUMBER 10.3 DN AERODYNAMIC CHARACTERISTICS OF O1 SCALE 139-B DRBITER

SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE	INVESTIGATIONS ON AN O.030-SCALE SPACE SHUTTLE VEHICLE CONFIGURATION140A/B ORBITER MODEL IN THE AMES RESEARCH CENTER11-BY11-FOOT SUPER- SONIC WIND TUNNEL	INVESTIGATIONS ON AN O.030-SCALE SPACE SHUTTLE VEHICLE CONFIGURATION 140A/B ORBITER MODEL IN THE AMES RESEARCH CENTER 11-BY11-FOOT SUPER-SONIC WIND TUNNEL (0853A)	AIRLOADS INVESTIGATION OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-OTS) IN THE ARC 9- BY 7-FOOT UNITARY PLAN WIND TUNNEL FOR MACH 1.55 AND 2.2 (IA14B)	AIRLOADS INVESTIGATION OF AN O 030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B LAUNCH CONFIGURATION (MODEL 47-01S) IN THE ARC 9- BY 7-FOOT UNITARY PLAN WIND TUNNEL FOR MACH 1.55 AND 2.2 (IA14B)	AIRLOADS INVESTIGATION OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 140A/B ORBITER CONFIGURATION (MODEL 47-0) IN THE ARC 11-FOOT UNITARY PLAN WIND TUNNEL FOR MACH O.6 AND O.9 (0A22A)	AIRLOADS INVESTIGATION OF AN O.030-SCALE MODEL OF THE SPACE SHUTTLE 140A/B ORBITER CONFIGURATION (MODEL 47-0) IN THE ARC 9- BY 7-FOOT UNITARY PLAN WIND TUNNEL FOR MACH 1.55 AND 2.2 (0A228)	RESULTS OF DYNAMIC STABILITY TESTS CONDUCTED ON A .012 SCALE MODIFIED 089 B SHUTTLE DRBITER IN THE AEDC-VKF TUNNEL B AT A MACH NUMBER OF 8.0 (1A42)	RESULTS OF TESTS IN THE NASA/LARC 31-INCH CFHT DN AN O 010-SCALE MODEL (32-01) OF THE SPACE SHUTTLE CONFIGURATION 3 TO OBTAIN HYPERSONIC AERODYNAMIC CHARACTERISTICS FOR SECOND STAGE OPERATION DURING NOMINAL BOOST AND THE ABORT RTLS MODE	RESULTS OF INVESTIGATIONS (0A77 AND 0A78) ON AN O.015-SCALE 140A/B CONFIGURATION SPACE SHUTTLE VEHICLE ORBITER MODEL 49-0 IN THE AEDC VKF B AND C WIND TUNNELS	RESULTS OF HEAT TRANSFER TESTS OF AN O.0175-SCALE SPACE SHUTTLE VEHICLE MODEL 22 DTS IN THE NASA-AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (IH3)
NASA SERIES NUMBER	OA53A	0A53A 	IA 14B	IA148	0A22A	0A22B	LA42	1A58	0A77/0A78	LA 13 1H3
	X -0- X -0	- 05	V-04	v-02						JCELLED: V-01
NASA CR NUMBER	134,114	134, 115	141,522	141,523.	141,529	141,530	141,535	134, 110	134,429	TASK CANCELLED 141,514 V-O
DMS-DR REPORT	2.128	2128	2,129	2129	0£ 75 8–16	2131.	2132	2133	2134: R-01	2135

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SPACE SHUTTLE WIND TUNNEL TEST PROGRAM
DATA REPORT DOCUMENTATION

SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE	RESULTS OF HEAT TRANSFER TESTS OF AN O.0175-SCALE SPACE SHUFTLE VEHICLE MDDEL 22 OTS IN THE NASA-AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (1H3)	RESULTS OF HEAT TRANSFER TESTS OF AN O.0175-SCALE SPACE SHUTTLE VEHICLE MODEL 22 OTS IN THE NASA-AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (1H3)	RESULTS OF HEAT TRANSFER TESTS OF AN O.0175-SCALE SPACE SHUFTLE VEHICLE MODEL 22 OTS IN THE NASA-AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (IH3)	RESULTS OF TESTS IN THE NASA/LARC 31-INCH CFHT ON A O.01-SCALE MODEL (32-DT) OF THE SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE THE RCS JET FLOWFIELD INTERACTION EFFECTS ON AERODYNAMIC CHARACTERISTICS(1A60/DA105)	RESULTS OF TESTS IN THE NASA/LARC 31-INCH CFHT ON A O.O1-SCALE MODEL (32-OT) OF THE SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE THE RCS JET FLOWFIELD INTERACTION EFFECTS ON AERODYNAMIC CHARACTERISTICS(1A6O/OA1OS) VOLUME 1 OF 2	AEROHEATING(PRESSURE) CHARACTERISTICS OF A O.010-SCALE VERSION OF THE VEHICLE 3 SPACE SHUTTLE CONFIGURATION(26-DTS) IN THE LANGLEY RESEARCH CENTER 4-FOOT WIND TUNNEL(1H4)	AERCHEATING(PRESSURE) CHARACTERISTICS OF A O O10-SCALE VERSION OF THE VEHICLE 3 SPACE SHUTTLE CONFIGURATION(26-0TS) IN THE LANGLEY RESEARCH CENTER 4-FOOT WIND TUNNEL(1H4)	AEROHEATING(PRESSURE) CHARACTERISTICS OF A O.O10-SCALE VERSION OF THE VEHICLE 3 SPACE SHUTTLE CONFIGURATION(26-0TS) IN THE LANGLEY RESEARCH CENTER 4-FOOT WIND TUNNEL(1H4)	AEROHEATING(PRESSURE) CHARACTERISTICS OF A O.O10-SCALE VERSION OF THE VEHICLE 3 SPACE SHUTTLE CONFIGURATION(26-0TS) IN THE LANGLEY RESEARCH CENTER 4-FODT WIND TUNNEL(1H4)	EFFECT OF ELEVON GAP CONFIGURATIONS ON THE LONGITUDINAL AND LATERAL/DIRECTIONAL STABILITY AND CONTROL EFFECTIVENESS OF THE 43-O SPACE SHUTTLE ORBITER (1A60/OA105)	IMVESTIGATION OF SPACE SHUTTLE ORBITER SUBSONIC STABILITY AND CONTROL CHARACTERISTICS AND DETERMINATION OF CONTROL SURFACE HINGE MOMENTS IN THE ROCKWELL INTERNATIONAL LOW SPEED WIND TUNNEL (0A37)
NASA SERTES NUMBER	1113	ІНЗ	ІНЗ	0A 105	1460	114	1114	IH4	1144	OA118	0A37
1 1 4 1 1	V-02	N-03	V-04	V-02	V-0.1	V-01	V-02	V-03	V-04		
NASA CR NUMBER	141,515	141,516	141,517	134, 106	134, 103	144,608	144,609	144,610	144,611	134,407	134,408
DMS-DR REPORT: NUMBER	2136	2136	2136	2137	2137 R-01	8£ 7 17	2138	2.138	2.138	2:139:	2140

DMS-DR REPORT NUMBER	NASA CR NUMBER		NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
214	141,538		DH11.	RESULTS OF TESTS OF A ROCKWELL INTERNATIONAL SPACE SHUTTLE ORBITER (-139 CONFIGURATION) O.0175-SCALE MODEL (NO.29-O) IN THE AEDC TUNNEL F TO DETERMINE HYPERSONIC HEATING EFFECTS (OH11)
2:142:	134,402		FA4	DETERMINATION OF AERODYNAMIC STABILITY AND DRAG OF THE TITAN SRM DURING ENTRY
2143	144,587		JA61A	AERODYNAMIC RESULTS OF WIND TUNNEL TESTS DN AN O.010-SCALE MODEL (32-DTS) SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC VKF 40-INCH SUPERSONIC WIND TUNNEL
2:144	134,427		1468	AN INVESTIGATION OF THE SUPPORT INTERFERENCE EFFECTS OF THE SSV MODEL 13P-0TS. IN THE TRANSONIC AND SUPERSONIC FLOW REGIMES
2145 20	134.420		TA1F	AN INVESTIGATION TO DETERMINE THE STATIC STABILITY DURING RE-ENTRY OF THE O.003-SCALE MCR 0200 BASELINE SPACE SHUTTLE EXTERNAL TANK MODEL
214 2146 3146	134,092		154	FLUTTER TESTS (1S4) OF THE O.0125-SCALE SHUTTLE REFLECTION PLANE MODEL 30-DTS IN THE LANGLEY RESEARCH CENTER 26-INCH TRANSONIC BLOWDOWN TUNNEL TEST NO. 547
2147	134,097		DA 20C	RESULTS OF INVESTIGATIONS (DA2OC) ON AN O.015-SCALE CONFIGURATION 140A/B SPACE SHUTTLE VEHICLE ORBITER MODEL (49-0) IN THE NASA/LANGLEY RESEARCH CENTER UNITARY PLAN WIND TUNNEL
2148	134,440	V-01	1H20	HYPERSONIC AEROHEATING TEST OF SPACE SHUTTLE VEHICLE CONFIGURATION 3 (MODEL 22-0TS) IN THE NASA-AMEŞ 3.5-FOOT HYPERSONIC WIND TUNNEL(IH-20)
2148	134,441	V-02	1H2O	HYPERSONIC AEROHEATING TEST OF SPACE SHUTTLE VEHICLE CONFIGURATION 3 (MODEL 22-0TS) IN THE NASA-AMES 3.5-FOOT HYPERSONIC WIND TUNNEL(IH-20)
2149	141,805		0490	RESULTS OF INVESTIGATIONS ON A O.010-SCALE 140A/B CONFIGURATION SPACE SHUTTLE VEHICLE ORBITER MODEL 72-0 IN THE NASA/LANGLEY RESEARCH CENTER CONTINUOUS FLOW HYPERSONIC TUNNEL (0A90)
2150	141,511		SA25F	AN INVESTIGATION OF HIGH MACH NUMBER STATIC STABILITY CHARACTERISTICS FOR A LARGE SCALE SOLID ROCKET BOOSTER
2. -2. -1.	141,815		0H6	RESULTS OF AERODYNAMIC HEAT TRANSFER TESTS OF A 0.0175-SCALE MODEL OF THE ROCKWELL INTERNATIONAL SPACE SHUTTLE ORBITER 139 (MODEL NUMBER 22-0) IN THE NASA/AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (TEST OHG)

	A NASA SERIES 'SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE	0A81 RESULTS OF AN INVESTIGATION OF HYPERSONIC VISCOUS INTERACTION EFFECT O.01 SCALE SPACE SHUTTLE ORBITER S1-0 MODEL IN THE AEDC-VKF HYPERVEL TUNNEL	.377 IM1 INVESTIGATION OF THE HEAT TRANSFER EFFECTS ON THE 22-0TS 0.0175- SCALE THIN SKIN THERMOCOUPLE MODEL (VEHICLE 3 CONFIGURATION)	,437 OH4A HEAT TRANSFER TESTS OF A O.0175-SCALE SPACE SHUTTLE ORBITER MODEL (29-0) TO DETERMINE THE EFFECT OF SURFACE TEMPERATURE ON BOUNDARY LAYER TRANSITION AT MACH 8.0 IN THE AEDC VKF TUNNEL B (TEST OH4A)	.406 DA110 STABILITY AND CONTROL CHARACTERISTICS FOR THE INNER MOLD LINE CONFIGURATION OF SPACE SHUTTLE ORBITER(0A110)	.797 V-O1 IA17A RESULTS OF AN EXTERNAL TANK SEPARATION TEST IN THE AEDC/VKF TUNNEL BON AN O.010 SCALE REPLICA OF THE SPACE SHUTTLE VEHICLE (MODEL 52-OT)IA17A	.798 V-02 IA17A RESULTS OF AN EXTERNAL TANK SEPARATING TEST IN THE AEDC/VKF TUNNEL BON AN O.010 SCALE REPLICA OF THE SPACE SHUTTLE VEHICLE (MODEL 52-01)IA17A	,799 V-03 IA17A RESULTS OF AN EXTERNAL TANK SEPARATION TEST IN'THE AEDC/VKF'TUNNEL BON AN O.010 SCALE REPLICA OF THE SPACE SHUTTLE VEHICLE (MODEL 52-0T)IA17A	.822 IH19 HEAT TRANSFER TESTS OF AN O.OOG-SCALE THIN SKIN SPACE SHUTTLE MODÉL (50-0.	.640 IS6A FLOW VISUALIZATION TESTS OF A O.004-SCALE SPACE SHUTTLE VEHICLE 2A MODEL (ND. 13-0TS) IN THE MSFC 14-INCH TRISONIC WIND TUNNEL	.410 V-01 DAS9 AERODYNAMIC RESULTS OF SUPPORT SYSTEM EFFECTS TESTS CONDUCTED IN NASA/ARC 6-BY 6FOOT SUPERSONIC WIND TUNNEL USING A 0.015-SCALE MODEL OF THE CONFIGURATION 140A/B SSV ORBITTP (0A59)	.412 V-O2 DA59 AERODYNAMIC RESULT; OF SUPPORT SYSTEM EFFECTS TESTS CONDUCTED IN NASA/ARC 6-BY-6 FOOT SUPERSONIC WIND TUNNEL USING A 0.015 -SCALE MODEL OF THE CONFIGURATION 140A/B SSV ORBITER (0A59)	.413 IA18 WIND TUNNEL TESTS OF THE O.O10-SCALE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA/AMES 3.5 FOOT HYPERSONIC WIND TUNNEL (1A18)
NASZ CR NUME 134 134 134 134 134 134 134	NASA: CR NUMBER:	134,423	151,377	134,437	134,406	141,797	141,798	141,799	141,822	147,640	134,410	134,412	134,413

SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE	RESULTS OF INVESTIGATIONS ON AN O.015-SCALE 140A/B CONFIGURATION OF THE ROCKWELL INTERNATIONAL SPACE SHUTTLE PRRITER IN THE NASA/AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC WIND TURNEL (0A36)	AERODYNAMIC RESULTS OF A SUPPORT SYSTEM INTERFERENCE EFFECTS TEST CONDUCTED AT NASA/LARC UPWT USING AN 0.015-SCALE MODEL OF THE CONFIGURATION 140A/B SIV ORBITER (GA208)	HEAT TRANSFER TESTS ON A O.01-SCALE ROCKWELL CONFIGURATION 3 SPACE SHUTTLE ORBITER AND TANK (37-01)IN THE CALSPAN 48-INCH HYPERSONIC SH OCK TUNNEL (OH:2/IH21)	HEAT TRANSFER TESTS ON A O.01-SCALE ROCKWELL CONFIGURATION 3 SPACE SHUTTLE ORBITER AND TANK (37-01)IN THE CALSFAN 48-INCH HYPERSONIC SH DCK TUNNEL (0H12/1H21)	HEAT TRANSFER TESTS ON A O.O1-SCALE ROCKWELL CONFIGURATION 3 SPACE SHUTTLE ORBITER AND TANK (37-01)IN THE CALSPAN 48-INCH HYPERSONIC SH OCK TUNNEL (0H12/IH21)	RESULTS OF AN INVESTIGATION OF AN O.003-SCALE SPACE SHUTTLE EXTERNALTANK (MSFC MODEL 460) IN THE NASA/MSFC 14 X 14-INCH TRISONIC WIND TUNNEL TO DETERMINE STATIC PRESSURE DISTRIBUTIONS DURING REFINEY (TA2F)	RESULTS OF AN INVESTIGATION OF AN O.003-SCALE SPACE SHUTTLE EXTERNALTANK (MSFC MODEL 460) IN THE NASA/MSFC 14 X 14-INCH TRISONIC WIND TUNNEL TO DETERMINE STATIC PRESSURE DISTRIBUTIONS DURING REENTRY (TA2F)	RESULTS OF AN INVESTIGATION OF AN O.003-SCALE SPACE SHUTTLE EXTERNALTANK (MSFC MODEL 460) IN THE NASA/MSFC 14 X'14-INCH TRISONIC WIND TURNEL TO DETERMINE STATIC PRESSURE DISTRIBUTIONS DURING REFNTRY (TA2F)	RESULTS OF AN INVESTIGATION OF AN O.003-SCALE SPACE SHUTTLE EXTERNALTANK (MSFC MODEL 460) IN THE NASA/MSFC 14 X 14-INCH TRISONIC WIND TUNNEL TO DETERMINE STATIC PRESSURE DISTRIBUTIONS DURING REENTRY (TA2F)	RESULTS OF AN INVESTIGATION OF AN O.003-SCALE SPACE SHUFTLE EXTERNALTANK (MSFC MODEL 460) IN THE NASA/MSFC 14 X 14-INCH TRISONIC WIND TURNEL TO DETERMINE STATIC PRESSURE DISTRIBUTIONS DURING REENTRY (TA2F)
NASA SERIES NUMBER	0A36	0A20B	0H12/IH21	OH12/IH21	OH12/IH21	TAZF	TA2F	TAZF	TA2F	JA2F
	i i i		V-0.1	V-02	V-03	V -0.1	v-02	N-03	V-04	V-05
MASA CR NUMBER	134,430	134,403	141,828	141,829	141.830	14.1,823	141,824	141,825	141,826	141.827
DMS-DR REPORT.	2162	2163	2164.	2:164	B-20	2165	2165	2165	2 165	2165

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CHRYSLER DATA MANAGEMENT SERVICES(DMS)
SPACE SHUTTLE WIND TUNNEL TEST PROGRAM
DATA REPORT DOCUMENTATION

DMS-DR REPORT NUMBER	NASA CR' NUMBER		NASA SERTES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2:166	141,534		IH16	HEAT TRANSFER TESTS OF AN O.OOG SCALE THIN-SKIN SPACE SHUTTLE THERMOCOUPLE MODEL (41-0TS) IN THE LANGLEY RESEARCH CENTER UNITARY PLAN WIND FUNNEL AT M=3.7 (1H16)
2167	141,550		0A98	RESULTS OF AN INVESTIGATION ON AN O.015-SCALE MODEL(49-0) OF THE ROCKWELL INTERNATIONAL SPACE SHUTTLE ORBITER IN THE NASA AMES RESEARCH CENTER 3.5-FDGT HYPERSONIC WIND TUNNEL (0A98)
2168	TM-X71945		LA32	HEAT TRANSFER TO SURFACE AND GAPS OF RSI TILE ARRAYS IN TURBULENT FLOW AT MACH 10.3
2:169	141,836	V-01	IA81A	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O 030-SCALE MODEL (47-DTS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 11 X 11 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (IA81A) VOLUME 1 OF 7
8-21 B-21	141.837	V-02	IA81A	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.O3O-SCALE MODEL (47-0TS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 11 X 11 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (IAB1A) VOLUME 2 OF 7
2:169	141,938	6 -03	18818	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.030-SCALE MODEL (47-DTS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 11 X 11 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (1A81A) VOLUME 3 OF 7
2169	141,839	V-04	14814	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.O3O-SCALE MODEL (47-DIS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 11 X 11 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (IAB1A) VOLUME 4 OF 7
2169	141,840	V-05	IA81A	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O 030-SCALE MODEL (47-DIS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 11 X 11 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (IA81A) VOLUME 5 OF 7
2:169	141,841	90-A	IA81A	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.030-SCALE MODEL (47-0TS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 11 X 11 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (IA81A) VOLUME 6 OF 7
2:169	141,842	V -07	IA81A	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.030-SCALE MODEL (47-0TS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 11 X 11 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (1A81A) VOLUME 7 OF 7

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DMS-DR REPORT NUMBER	NASA CR NUMBER	1 3 1 1 1	NASA SERIES NUMBER	SMACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA
2170	141,543	V -01	IA19	RESULTS OF A JET PLUME EFFECTS TES) ON THE ROCKWELL INTERNATIONAL INTEGRATED SPACE SHUTTLE VEHICLE USING A VEHICLE 5 CONFIGURATION O.O2-SCALE MODEL (88-OTS) IN THE 11 X 11 FOOT LEG OF THE NASA/AMES RESEARCH CENTER UNITARY PLAN WIND TUNNEL (1A19)
2170	141,544	v-02	IA19	RESULTS OF A JET PLUME EFFECTS TEST ON THE ROCKWELL INTERNATIONAL INTEGRATED SPACE SHUTTLE VEHICLE USING A VEHICLE 5 CONFIGURATION 0.02-SCALE MODEL (88-0TS) IN THE 11 X 11 FOOT LEG OF THE NASA/AMES RESEARCH CENTER UNITARY PLAN WIND TUNNEL (1A19)
2170	141,545	K-03	1A 19	RESULTS OF A JET PLUME EFFECTS TEST ON THE ROCKWELL INTERNATIONAL INTEGRATED SPACE SHUTTLE VEHICLE USING A VEHICLE 5 CONFIGURATION 0.02-SCALE MODEL (88-0TS) IN THE 11 X 11 FOOT LEG OF THE NASA/AMES RESEARCH CENTER UNITARY PLAN WIND TUNNEL (1A19)
£ 22 B-22	144,584	V-01	онэв	RESULTS OF PRESSURE DISTRIBUTION TESTS OF A O.O10-SCALE SPACE SHUTTLE ORBITER MODEL (61-0) IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TUNNEL (DH38)
217:1	144,585	V-02	OH38	RESULTS OF PRESSURE DISTRIBUTION TESTS OF A O.010-SCALE SPACE SHUTILE ORBITER MODEL (61-0) IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TUNNEL (0H38)
2171	144,586	€0- ∧	0H38	RESULTS OF PRESSURE DISTRIBUTION TES S OF A O.010-SCALE SPACE SHUTTLE ORBITER MODEL (61-0) IN THE NASA/ARC 3.5-FO. HYPERSONIC WIND TUNNEL (0438)
2172	134,415		0A99	RESULTS OF REACTION CONFROL SYSTEM ON-ORBIT JET USING AN O.0175-SCALE CONFIGURATION 3 SPACE SHUTTLE ORBITER MODEL (21-0) IN THE LARC 60-FOOT VACUUM SPHERE
2 1:73.	134, 107		IA8.	AERODYNAMIC RESULTS OF AN ABORT SEPARATION'EFFECTS TEST (1A8) CONDUCTED IN THE NASA/LARC 14-FOOT TRANSONIC WIND TUNNEL ON A MODEL (6-OTS) OF THE ROCKWELL INTERNATIONAL LAUNCH CONFIGURATION INTEGRATED VEHICLE
2,174	141,811	V-01	IA33	AN INVESTIGATION IN THE MSFC 14-INCH TWT TO DETERMINE THE STATIC STABLLITY CHARACTERISTICS OF THE 0.004-SCALE MODEL (74-OTS) SPACE SHUTTLE VEHICLE 5 CONFIGURATION (1A33)
2174	141,812	V -02	1433	AN INVESTIGATION IN THE MSFC 14-INCH TWT TO DETERMINE THE STATIC STABILITY CHARACTERISTICS OF THE O.004-SCALE MODEL (74-DTS) SPACE SHUTTLE VEHICLE 5 CONFIGURATION (1A33)

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DMS-DR REPORT NUMBER	NASA CR NUMBER		NASA SERIES NUMBER	
2.174	141,813	V-03	1A33	AN INVESTIGATION IN THE MSFC 14-INCH TWT TO DETERMINE THE STATIC STABILITY CHARACTERISTICS OF THE O.004-SCALE MODEL (74-DTS) SPACE SHUTTLE VEHICLE 5 CONFIGURATION (1A33)
2175	134,431	V-01	1A70	SUBSONIC AND TRANSONIC HINGE MOMENT AND WING BENDING/TORSION CHARACTERISTICS FOR THE -140A/B INTEGRATED SPACE SHUTTLE VEHICLE (1A70) VOLUME 1 OF 3
2.175	134,432	V-02	1A70	
2175	134,433	V-03	IA70	
B÷2	TM-X72661		LA40	SPACE SHUTTLE DRBITER TRIMMED CENTER OF GRAVITY EXTENSION STUDY VOLUME IV - EFFECTS OF CONFIGURATION MODIFICATIONS ON THE AERUDYNAMICS OF THE 139B DRBITER AT MACH 20.3
21,77	141,510		DAB3	RESULTS OF INVESTIGATIONS ON AN O.015-SCALE CONFIGURATION 140A/B SPACE SHUTTLE VEHICLE ORBITER REACTION CONTROL SYSTEM PLUME-IMPINGEMENT MODEL 36-0 IN THE NASA/AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC WIND TUNNEL (DAB3)
2.178	134,119			
2179	151,378		OS8A/B	RESULTS OF AN INVESTIGATION OF THE ACCUSTIC AND VIBRATIONAL ENVIRONMENT OF A FULL SCALE SPACE SHUTTLE ORBITER STRUCTURA! IEST PANEL WITHSIMULATED TPS IN THE AMES UNITARY PLAN WIND TUNNEL (MODEL 81-0.TEST OSBA AND B)
2.180	147,615	V-01	11428	HEAT TRANSFER TEST OF AN O.006-SCALE THIN-SKIN THERMOCOUPLE SPACE SHUTTLE MODEL (50-0,41T) IN THE NASA AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC WIND TUNNEL AT MACH 5.3 (1H-28)
2180	147,616	7 -05	1H28	HEAT TRANSFER TEST OF AN O.OOG-SCALE THIN-SKIN THERMOCOUPLE SPACE SHUTTLE MODEL (50-0.417) IN THE NASA-AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC WIND TUNNEL AT MACH 5.3 (1H-28)
2181	134.425		TA9F	A HYPERSONIC FORCE AND MOMENT TEST DF A O.OOG SCALE MODEL OF THE 330.2 INCH DIAMETER EXTERNAL TANK IN THE AMES RESEARCH CENTER 3.5 FT. HYPERSONIC WIND TUNNEL (TA9F)

DMS-DR REPORT NUMBER	NASA CR NUMBER	NASA SERIES NUMBER	
2182	151,062	** 	SUPERSONIC CONTROL EFFECTIVENESS FOR FULL AND PARTIAL SPAN ELEVON CONFIGURATIONS ON A O. O. O. O. O. O. O. O. O. O. O. O. O.
2183	TM-X72661	LA51	SPACE SHUTTLE ORBITER TRIMMED CENTER-OF-GRAVITY EXTENSION STUDY: VOLUME II-EFFECTS OF CONFIGURATION MODIFICATIONS ON THE AERODYNAMIC CHARACTERISTICS OF THE 140A/B ORBITER AT TRANSCANT, EDEFICE
2184	151,061	LA48	TRANSONIC CONTROL EFFECTIVENESS FOR FULL AND PARTIAL SPAN ELEVON CONFIGURATIONS ON A O.0165 SCALE MODEL SPACE SHUTTLE ORBITER TESTED INTHE LARC 8-FOOT TRANSONIC PRESSIDE TIMME
2185 2485	134, 120	OA53C	INVESTIGATIONS ON AN O.030-SCALE SPACE SHUTTLE VEHICLE CONFIGURATION140A/B ORBITER MODEL IN THE AMES RESEARCH CENTER UNITARY PLAN 8-BY 7-F001 SUPERSONIC
9 5 8-24	134,428	04116	RESULTS OF DIFFERENTIAL ELEVON/AILERON DEFLECTION FOR LATERAL CONTROL OPTIMIZATION AND ELEVON HINGE MOMENT INVESTIGATIONS ON AN O.015-SCALE MODEL(49-0) OF THE SPACE SHUTTLE ORBITER IN THE NASA/LANGLEY RESEARCH CENTER 8-FOOT TRANSONIC PRESSURE TUNNEL
2187	134,421	OA119A	EFFECTS OF WING/ELEVON GAP SEALING FLAPPER DOORS ON ORBITER ELEVON
2.188	TM-X.	LA39	** TO BE PUBLISHED AT LARC **
2:189	141,506	IA110.	RESULTS OF INVESTIGATION 1A110 ON A O.015-SCALE INTEGRATED CONFIGURATION OF THE SPACE SHUTTLE VEHICLE IN THE ARC 9X7 SUPERSONIC WIND TUNNEL USING MODELS.
2190	141,537	DA 108	INVESTIGATION IN THE MSFC TWT TO VERIFY THE STATIC STABILITY AND CONTROL EFFECTIVENESS OF THE O.004-SCALE MODEL (74-0) OF THE SHUTTLE 5 ORBITER (0A-108)
2191	TM-X72661	LA47	SPACE SHUTTLE ORBITER TRIMMED CENTER OF GRAVITY EXTENSION STUDY: VOLUME 1EFFECTS OF CONFIGURATIONS ON THE AERODYNAMIC CHARACTERISTICS OF THE 140 A/B ORBITER AT MACH 10 3
2192	141,541 V	V-01 1A87	AERODYNAMIC RESULTS OF A SEPARATION EFFECTS TEST (1A87) ON A O.O1-SCALE MODEL (52-OTS) OF THE INTEGRATED SSV IN THE AEDC/VKF 40-BY-40 INCH SUPERSONIC WIND

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2192	14-1,542	^ -05	1A87	AERODYNAMIC RESULTS OF A SEPARATION EFFECTS TEST (1A87) ON Å O.O1-SCALE (52-OTS) OF THE INTEGRATED SSV IN THE AEDC/VKF 40-BY-40 INCH SUPERSONIC TUNNEL A
2193	151,380		0H26	RESULTS OF HEAT TRANSFER TEST OF A O.0175-SCALE SPACE SHUTTLE ORBITER 1408 MODEL (MODIFIED 22-0) IN THE NASA-AMES RESEARCH CENTER'S 5-FOOT HYPERSONIC WIND TUNNEL
2194	141,817	V-01	1A818	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.030-SCALE MODEL (47-DTS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 9 X 7 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (1A818) VOLUME 1 OF 5
2194	141,818	V-02	1A8.18	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.O3O-SCALE MODEL (47-0TS) DF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION S. IN THENASA AMES RESEARCH CENTER 9 X 7 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (1A818) VOLUME 2 OF 5
76 76 1–25	141,819	v-03	IA818	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.030-SCALE MODEL (47-0TS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 9 X 7 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (1A81B) VOLUME 3 OF 5
2194	141,820	V -04	1A81B	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.030-SCALE WIDEL (47-0TS) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEARCH CENTER 9 X 7 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (1A818) ONLUME 4 OF 5
2194	141,821	V-05	IA818	RESULTS OF A PRESSURE LOADS INVESTIGATION ON A O.030-SCALE MODEL (47-015) OF THE INTEGRATED SPACE SHUTTLE VEHICLE CONFIGURATION 5 IN THENASA AMES RESEAR. THE CENTER 9 X.7 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL (1A818) VOLUME 5 OF 5
2195	134,442		0A82	RESULTS OF TEST DAB2 IN THE NASA/LRC 31-INCH CFHT ON AN O.010-SCALE MODEL(32-0) OF THE SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE RCS JET FLOW FIELD INTERACTION A:40 TO INVESTIGATE RT REAL GAS FFFECTS
2196	141,531		0A79	RESULTS OF INVESTIGATIONS OF AN O.015 SCALE SPACE SHUTTLE VEHICLE 140A/B CONFIGURATION WITH MODIFIED OMS PODS AND ELEVONS IN THE AEDC VKF TUNNEL B (0479)
2.19.7	134,418		FH10	PRESSURE AND HEAT-FLUX RESULTS FROM THE SPACE SHUTTLE/EXTERNAL FUEL TANK INTERACTION TEST AT MACH NUMBERS 16 AND 19 (FH10)
2198	141,534		OA115	DIFFERENTIAL ELEVON EFFECTIVENESS LATERAL CONTROL OPTIMIZATION AND ELEVON HINGE MOMENT INVESTIGATION ON A O.015-SCALE SPACE SHUTTLE ORBITER MODEL (140 A/B/C MODIFIED) IN THE AEDC VKF WIND TUNNEL A (04115)

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DMS-DR REPORT NUMBER	NASA CR NUMBER		NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2209	141,536	1 1 1 1	0A 124	RESULTS OF A SPACE SHUTTLE VEHICLE FERRY CONFIGURATION AFTERBODY FAIRING OPTIMIZATION STUDY USING A 140A/B O.0405-SCALE MODEL ORBITER (43-0.) IN THE ROCKWELL INTERNATIONAL 7.75 X 11.0 FT LOW SPEED WIND TUNNEL (0A124)
22.10	15.1, 372		1H27	CONNECTIVE HEAT-TRANSFER TEST RESULTS FOR A GAP, CYLINDRICAL-PROTUBERANCE, AND SHOCK-IMPINGEMENT FLAT-PLATE MODEL IN THE NASA-AMES 3.5-FOOT HYPERSONIC WIND TUNNEL (TEST 1H27, MODEL 15-O VIII)
2244	141,800	V-01	CAS	RESULTS OF A O.03-SCALE AERODYNAMIC CHARACTERISTICS INVESTIGATION OFA BOEING 747 CARRIER(MODEL NO. AX 1319 I-1) MATED WITH A SPACE SHUTTLE ORBITER (MODEL 45-0) CONDUCTED IN THE BOEING TRANSONIC WIND TUNNEL (CA5)
22.1.1	141,803	V-02	CAS	RESULTS OF A O.O3-SCALE AERODYNAMIC CHARACTERISTICS INVESTIGATION OF LE ORBITER (MODEL 45-0) CONDUCTED IN THE BOEING TRANSONIC WIND TUNNEL (CA5)
E-27	141,804	K-03	C.A.5	RESULTS OF A O.03-SCALE AERODYNAMIC CHARACTERISTICS INVESTIGATION OFA BOEING 747 CARRIER(MODEL NO. AX-1319 I-1) MATED WITH A SPACE SHUTTLE ORBITER (MODEL 45-0) CONDUCTED IN THE BOEING TRANSONIC WIND TUNNEL (CA5)
22 12	147,632	V-01	1480	INVESTIGATIONS OF THE O.O20-SCALE 88-OTS INTEGRATED SPACE SHUTTLE VEHICLE JET-PLUME MODEL IN THE NASA/AMES RESEARCH CENTER 11X11-FOOT UNITARY PLAN WIND TUNNEL (IA80)
22:12	147,633	V-02	1480	INVESTIGATIONS OF THE O.020-SCALE 88-OTS INTEGRATED SPACE SHUTTLE VEHICLE JET-PLUME MODEL IN THE NASA/AMES RESEARCH CENTER 11X11-FOOT UNITARY PLAN WIND TUNNEL (IA80)
2212	147,634	×-03	1A80	INVESTIGATIONS OF THE O.020-SCALE 88-OTS INTEGRATED SPACE SHUTTLE VEHICLE JET-PLUME MODEL IN THE NASA/AMES RESEARCH CENTER 11X11-FDDT UNITARY PLAN WIND TUNNEL (IA80)
22.12	147,635	V-04	IA80	INVESTIGATIONS OF THE O.020-SCALE 88-OTS INTEGRATED SPACE SHUTTLE VEHICLE JET-PLUME MODEL IN THE NASA/AMES RESEARCH CENTER 11X11-FOOT UNITARY PLAN WIND TUNNEL (IA80)
2213			LA53/LA54	** DOCUMENTATION NOT COMPLETE **
22:14	141,513		DA89	RESULTS OF INVESTIGATIONS ON AM O.004-SCALE 140C MODIFIED CONFIGURATION SPACE SHUTTLE VEHICLE ORBITER MODEL (74-0) IN THE NASA/LANGLEY RESEARCH CENTER HYPERSONIC NITROGEN TUNNFL (0A89)

DMS-DR REPORT NUMBER	NASA CR NUMBER	1	NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2215	144,592		LA58	UPPER WING OBTAINED ON THE LTV ASW
2216	141.802		SH12F	RESULTS OF AEROTHERMODYNAMIC HEATING TEST ON A O.013 SCALE MODEL SOLID ROCKET BOOSTER IN THE NASA/LARC UNITARY FLAN WIND TUNNEL (SH12F)
2217	141,844	V-04	CA20.	AERODYNAMIC RESULTS OF A SEPARATION TEST(CA2O) CONDUCTED AT THE BDEING TRANSONIC WIND TUNNEL USING O.030-SCALE MODELS OF THE CONFIGURATION 140A/B (MODIFIED) SSV ORBITER (MODEL NO. 45-O) AND THE BEDING 747CARRIER (MODEL NO. 45-1)
B-2	141,845	V-02	CA20	AERDDYNAMIC RESULTS OF A SEPARATION TESTICA2O) CONDUCTED AT THE BDEING TRANSONIC WIND TUNNEL USING O.030-SCALE MODELS OF THE CONFIGURATION 140A/B (MODIFIED) SSV ORBITER (MODEL NO. 45-0) AND THE REDING 747CARRIER (MODEL NO. AX 1319 I-1)
22.17	141,846	V-03	CA20	AERODYNAMIC RESULTS OF A SEPARATION TEST(CA20) CONDUCTED AT THE BOEING TRANSONIC WIND TUNNEL USING O 030-SCALE MODELS OF THE CONFIGURATION 140A/B (MODIFIED) SSV ORBITER (MODEL ND. 45-0) AND THE BEDING 747CARRIER (MODEL ND. Ax 1319 I-1)
2218	15.1,367		THIF	PRESSURE AND HEAT TRANSFER TESTS RESULTS ON THE SPACE SHUTTLE O.015-SCALE EXTERNAL TANK AT MACH 16 IN AEDC TUNNEL F
2219.	144,597	V-01	1A82C	RESULTS OF AN INVESTIGATION OF JET PLUME EFFECTS ON AN O.O1O-SCALE MODEL (75-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE 8- BY 7-FOOT LEG OF THE NASA/AMES UNITARY WIND TUNNEL (1A82C)
2219	144,598	V-02	1A82C	RESULTS OF AN INVESTIGATION OF JET PLUME EFFECTS ON AN O.010-SCALE MODEL (75-DTS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE 8- BY 7-FOOT LEG OF THE NASA/AMES UNITARY WIND TUNNEL (1A82C)
2220	TM-X		LA52	** TO BE PUBLISHED AT LARC **
2224	141,548		DA 1:43	INVESTIGATION OF SPACE SHUTTLE VEHICLE 140C CONFIGURATION ORBITER (MODEL 16-0) WHEEL WELL PRESSURE LOADS IN THE ROCKWELL INTERNATIONAL 7.75 X 11 FOOT WIND TUNNEL (04143)
2222	147,626	V-01	0H49B	RESULTS FROM A CONVECTIVE HEAT-TRANSFER-RATE DISTRIBUTION TEST ON A O 0175 SCALE MODEL(22-0) OF THE ROCKWELL INTERNATIONAL VEHICLE A SPACE SHUTTLE CONFIGURATION IN THE AEDC-VKF TUNNEL BEOHA9B)

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DMS-DR- REPORT NUMBER	NASA CR NUMBER	:	NASA SERTES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REP
2222.	147,627	V-02	0H49B.	RESULTS FROM A CONVECTIV SCALE MODEL(22-0) OF THE CONFIGURATION IN THE AED
2223	141,549		SABF	REENTRY STATIC STABILITY CHARACTERISTICS OF A . 005479 SCALE MODEL 146-INCH SOLID ROCKET BOOSTER TESTED IN THE NASA/MSFC 14X14 INCH TWI
2224	147,650		LASG	RESULTS OF A DRAG REDUCTION INVESTIGATED ON AN O.010-SCALE MODEL OF THE SPACE SHUTTLE VEHICLE 72-OTS LAUNCH CONFIGURATION TESTED IN THE LARC 8-FODT TRANSONIC PRESSURE TUNNEL FOR THE MACH RANGE OF 0.35 TO 1.20 (LAS6)
2225	141,505		0H4G +	! : PHASE CHANGE PAINT TESTS TO INVESTIGATE EFFECTS OF TPS TÎLES ON HEATING RATES OF THE ROCKWELL SPACE SHUTTLE ORBITER (TEST DH4C, MODEL 21-0)
9222 B=29	141.507/		1A618	RESULTS OF FLOW VISUALIZATION TESTS OF 0.010-SCALE SPACE SHUTTLE MODELS 32-0TS AND 52-0 IN THE AEDC VKF TUNNEL A (1A51B)
2227	141,806		1471	RESULTS OF EXPERIMENTAL TESTS IN THE MSFC 14X14 INCH TRISCNIC TUNNELON A .004 SCALE MODEL SPACE SHUTTLE INTEGRATED VEHICLE 5 (MODEL 77-0, 74-TS) TO RELIEVE WING LOADS DURING ASCENT (1A71)
2228	TM-X72661		LA46A/B	** TO BE PUBLISHED AT LARC **
2229	141,508		0A 102	RESULTS OF FLOW-VISWALIZATION INVESTIGATIONS ON A O.O15-SCALE MODIFIED COMFIGURATION 140A/B SPACE SHUTTLE VEHICLE DREITER (MODEL 36-0) IN THE LANGLEY RESEARCH CENTER
2230.	141,509		IA 178	RESULIS OF OIL FLOW VISUALIZATIONS TESTS OF AN O.010-SCALE MODEL (52-01) OF THE SPACE SHUTTLE ORBITER-TANK MATED AND ORBITER CONFIGURATIONS IN THE AEDC VKF TUNNEL B (1A17B)
2231	144,601	V-01	18828	RESULTS OF AN INVESTIGATION OF JET PLUME EFFECTS ON AN O.010-SCALE MODEL (75-01S) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE 9- BY 7-FOOT LEG OF THE NASA/AMES UNITARY WIND TUNNEL (IA82C)
223,1	144.602	V-02	IA82B	RESULTS OF AN INVESTIGATION OF JET PLUME EFFECTS ON AN O.O1O-SCALE MODEL (79-OTS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE 9- BY 7-FOOT LEG OF THE NASA/AMES UNITARY WIND TUNNEL (1A82C)
2232	141,521		OA 13.1.	RESULTS OF INVESTIGATIONS ON THE O.OO4-SCALE MODEL 74 O OF THE CONFIGURATION 4 (MODIFIED) SPACE SHUTTLE VEHICLE ORBITER IN THE NASA/MSFC 14-BY-14-INCH TRISONIC WIND TUNNEL (0A131)

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	RESULTS OF A DRAG REDUCTION INVESTIGATION ON AN'O.O:O-SCALE MODEL OFTHE SPACE SHUTTLE VEHICLE 72-OTS LAUNCH CONFIGURATION TESTED IN THE LARC 8-FOOT TRANSONIC PRESSURE TUNNEL FOR THE MACH RANGE OF O.3K TO 1.20	WIND TUNNEL TEST DA113 OF THE O.010-SCALE SPACE SHUTTLE ORBITER MODEL 51-0 IN THE CALSPAN HYPERSONIC SHOCK TUNNEL (48-INCH LEG)	REENTRY AERODYNAMIC FORCES AND MOMENTS ON THE ENGINE NOZZLE OF THE 146-INCH SOLID ROCKET BOOTER NODEL 473 IN MSFC 14 X 14 INCH TRISONICWIND TUNNEL (SA3OF)	ERODYNAMIC CHARA ERNAL TANK (MODE TON AÉRONAUTICAL	•• DOCUMENTATION NOT COMPLETE •• RESULTS OF WIND TUNNEL RCS INTERACTION TESTS ON A 0.040-SCALE SPACE SHUTTLE ORBITER MODEL (51-0) IN THE CALSPAN CORPORATION 48-INCH HYPERSONIC SHOCK TUNNEL	** TO BE PUBLISHED AT LARC ** RESULTS OF AN INVESTIGATION OF THE SPACE SHUTTLE INTEGRATED VEHICLE AERODYNAMIC HEATING CHARACTERISTICS OBTAINED USING THE O. 0:175-SCALE MODEL ACRODYNAMIC HEATING CHARACTERISTICS OBTAINED USING THE O. 0:175-SCALE MODEL GO-OTS IN THE AEDC TUNNEL A DURING TESTS IH41 AND IH41A	AN INVESTIGATION OF ENTRY HEATING ON THE O.0175 SCALE SPACE SHUTTLE ORBITER (MODEL 60-0) IN THE AEDC UKF TUNNEL B	AN INVESTIGATION OF ENTRY HEATING ON THE O.0175 SCALE SPACE SHUTTLE ORBITER (MODEL 60-0) IN THE AEDC UKF TUNNEL B	AN INVESTIGATION OF ENTRY HEATING ON THE O.0175 SCALE SPACE SHUTTLE ORBITER (MODEL 60-0) IN THE AFDC UKF TUNNEL B	AN INVESTIGATION OF EN'RY HEATING ON THE O.0175 SCALE SPACE SHUTTLE URBINER (MODEL 60-0.) IN THE AEDC UKF TUNNEL B	AEROBYNAMIC RESULTS OF A SEPARATION EFFECTS TEST ON A 0.010-SCALE MODEL (52-015) OF THE INTEGRATED SSV IN THE AEDC/VKF 40-BY-40 INCH SUPERSONIC WIND TUNNEL A (14111)
NASA Series Number	LA59	OA 113	SA30F	CA 11	0.893	LA38B 	0H39	онза	66140	6EH0	[IA111
							V-01	V-02	N-03	V-04	V-01
NASA CR NIMBER	151,068	141,547	141.810	141,835	141.847	TM-X 151,054	160.490	160,491	160,492	160, 493	141.83:
DMS-DR REPORT	NDB68	2234	2235	2236	B-30 2238	2239	2241	2241	2241	2241	2242

DMS-DR REPORT NUMBER	NASA CR NUMBER		NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2242	144,588	V-02		AERODYNAMIC RESULTS OF A SEPARATION EFFECTS TEST ON A 0.010-SCALE MODEL 1 (52-0TS) OF THE INTEGRATED SSV IN THE AEDC/VKF 40-BY-40 INCH SUPERSONIC WIND TUNNEL A (18111)
2243.	144,583		CA23A	RESULTS OF AN AERODYNAMIC INVESTIGATION OF A SPACE SHUTTLE ORBITER/747 CARRIER VEHICLE CONFIGURATION TO ESTABLISH A FREE-STREAM DATA BASE FOR ALT SEPARATION INVESTIGATIONS UTILIZING A O.0125-SCALE MODEL (48-/OAX1318I-1) IN THE ARC 14-FOOT WIND TUNNEL (CA23A)
22.44	151,082		SA28F	AN INVESTIGATION TO DETERMINE THE STATIC PRESSURE DISTRIBUTION OF THE 0.00548 SCALE SPACE SHUTTLE SOLID ROCKET BOOSTER (MSFC MODEL NUMBER 468) DURING REENTRY IN THE NASA/MSFC 14 INCH TRISONIC WIND TUNNEL.
25 B-31	147,618	V-01	0A161A/B/C	RESULTS OF AN INVESTIGATION TO DETERMINE LOCAL FLOW CHARACTERISTICS AT THE AIR DATA PROBE LOCATIONS USING AN O.030-SCALE MODEL (45-0) OFTHE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B (MODIFIED) INTHE NASA AMES RESEARCH CENTER UNITARY PLAN WIND TUNNEL ()
22.45	147,619	V-02	DA161A/B/C	RESULTS OF AN INVESTIGATION TO DETERMINE LOCAL FLOW CHARACTERISTICS AT THE AIR DATA PROBE LOCATIONS, USING AN O.030-SCALE MODEL (45-0) OFTHE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B (MODIFIED) INTHE NASA AMES RESEARCH CENTER UNITARY PLAN WIND TUNNEL ()
2246	144,600		LASS	LOW SUBSONIC AERODYNAMIC CHARACTERISTICS OF FIVE IRREGULAR PLANFORM WINGS WITH SYSTEMATICALLY VARYING WING FILLET GEOMETRY TESTED IN THENASA/AMES 12-FOOT PRESSURE TUNNEL (LA65)
2247	141,834		OA 160	RESULTS OF AN INVESTIGATION OF HYPERSONIC VISCOUS INTERACTION EFFECTS OF THE SPACE SHUTTLE ORBITER USING A O.O.1/ SCALE MODEL (51-O) IN THE AEDC-VKF TUNNEL F
2248	144,599		1H48	RESULTS OF HEAT TRANSFER TESTS OF A 0.0175-SCALE SPACE SHUTTLE VEHICLE 5 MODEL (60-0TS) IN THE NASA-AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC WIND TUNNEL (TEST 1H48)
2249	151,775		1H33	RESULTS OF SPACE SHUTTLE HEAT TRANSFER TESTS USING A 0.01-SCALE MODEL (37-DI) IN THE CALSPAN HYPERSONIC SHOCK TUNNEL (FEST 1H33)
2250	141,539		0H43	RESULTS OF CONVECTIVE HEATING TESTS OF A LONGITUDINAL GAP ON THE ROCKWELL FLAT PLATE MODEL (15-0, INSERT VII) IN THE NASA/AMES 3.5 FOOT HYPERSONIC WIND TUNNEL (TEST 0H43)

AGEMENT SERVICES (DMS.)	D TUNNEL TEST PROGRAM	DOCUMENTATION

DMS-DR REPORT: NUMBER	NASA CR NUMBER	1 1 1 1	NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2251	141,540		0H9	PESULTS OF TESTS ON A ROCKWELL INTERNATIONAL SPACE SHUTTLE DRBITER (-139 CONFIGURATION) O.0175-SCALE MODEL (NO. 29-0) IN AEDC TUNNEL B TO DETERMINE BOUNDARY LAYER CHARAÇTERISTICS
2252.	14.5, 546		0H25A	HEAT TRANSFER'PHASE CHAMOR DAINT TESTS OF O.0175-SCALE MODELS (NOS. 21-0 AND 46-0) OF THE ROCKWELL INTERNATIONAL SPACE SHUTTLE ORBITER IN THE AEDC TUNNEL BHYPERSONIC WIND TUNNEL (TEST 0H25A)
2253	144,833		IA125	AN INVESTIGATION IN THE MSFC INT TO DETERMINE SPOILER EFFECTS ON WING LOADS AND ELEVON HINGE MOMENTS UTILIZING O.004-SCARE MODELS (77-0 AND 74-DIS) OF THE SHUTLE VEHICLE 5 CONFIGURATION
2254	144,619	V-01	OA.148/OA.148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (0A148)
B-32	144.620	V-02	0A148/0A148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN 0.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (DA148)
2254	144,621	V-03	0A148/0A148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN 0.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 x 11 FOOT TRANSONIC WIND TUNNEL (DA148)
2254	144,622	V-04	OA 148/OA 148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 x 11 FOOT TRANSONIC WIND TUNNEL (0A148)
22554	144.623	v-05	OA148/OA148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (0A 148)
2254	144,624	90-A	OA148/OA148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (0A148)
2254:	144,625	V-Q7	0.8148/0.8148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (0A14B)

DMS-DR REPORT NUMBER	NÁSA CR NUMBER	1 1 2 1 1	NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2254	144.626	80 - >	OA148/OA148P	NAL AREA E (47-0) OF MES RESEAR
2254	144,627	60- >	OA148/OA148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE PRBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (0A148).
2254	144,628	V-10	0A148/0A148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (0A148)
2254 B	147,601	V-11	0A148/0A148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (0A148)
£ 5224	147,602	V-12	OA148/OA148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (DA148)
2254	147.603	V-13	0A148/0A148P	TERMINAL AREA ENERGY MANAGEMENT REGIME INVESTIGATIONS UTILIZING AN O.030-SCALE MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE ORBITER CONFIGURATION 140A/B/C/R IN THE AMES RESEARCH CENTER 11 X 11 FOOT TRANSONIC WIND TUNNEL (0A148)
2255				SHADOWGRAPHS OF AIR FLOW OVER PROSPECTIVE SPACE SHUTTLE CONFIGURATIONS AT MACH NUMBERS FROM O.8 TO 1.4
2256			LA68	** DOCUMENTATION NOT COMPLETE **
2257	151,369		LA69	RESULTS OF A DRAG REDUCTION INVESTIGATION ON AN O.010-SCALE MODEL OFTHE SPACE SHUTTLE VEHICLE (72-0TS) LAUNCH CONFIGURATION TESTED IN THE LARC 8-FOOT TRANSONIC PRESSURE TUNNEL FOR THE MACH RANGE OF 0.35 TO 1.20
2258	151,045	V-01	IA72	INVESTIGATIONS ON A O.020-SCALE JET PLUME MODEL (68-0TS) OF THE ROCKWELL INTERNATIONAL INTEGRATED SSV CONFIGURATION 14DC (MODIFIED) IN THE 11-FOOT TRANSONIC WIND TUNNEL
2258	151,046	V-02	1A72	INVESTIGATIONS ON A O O2O-SCALE JET PLUME MODEL (88-OTS) OF THE ROCKWELL INTERNATIONAL INTEGRATED SSV CONFIGURATION 14DC (MODIFIED) IN THE 11-FOOT TRANSONIC WIND TUNNEL

RT TIFLE	THE ROCKMELL IN THE 11-FOOT	(88-01S) OF THE ROCKWELL (MODIFIED) IN THE 11-FOOT	(88-015) OF THE ROCKWELL (MODIFIED) IN THE 11-FOOT	IN THE 11-FDDT	(88-01S) OF THE ROCKWELL (MODIFIED) IN THE 11-FOOT	(MODIFIED) IN THE 41-FDDI	(88-015) OF THE RDCKWELL (MODIFIED) IN THE 11-FODI	#IOthan action	SUBSONIC WIND TUNNEL	2	45-0
SPACE SHUTTLE VEHICLE WIND TUNNEL FEST DATA REPORT TITLE	INVESTIGATIONS ON A O.020-SCALE JET PLUME MODEL (88-0TS) OF THE RDCKWELL INTERNATIONAL INTEGRATED SSV CONFIGURATION 14DC (MODIFIED) IN THE 11-FGOT TRANSONIC WIND TUNNEL	.020-SCALE JET PLUME MODEL TED SSV CONFIGURATION 14DC	.020-SCALE JET PLUME MODEL. TED SSV CONFIGURATION 14DC	INVESTIGATIONS ON A O. 020-SCALE JET PLUME MODEE (88-015) UP THE 11-FDOT INTERNATIONAL INTEGRATED SSV CONFIGURATION 14BC (MODIFIED) IN THE 11-FDOT TRANSONIC WIND TUNNEL	.020-SCALE JET PLUME MODEL TED SSV CONFIGURATION 14DC	INVESTIGATIONS ON A O.020-SCALE JET PLUME MODEL (88-015) U INTERNATIONAL INTEGRATED SSV CONFIGURATION 14DC (MODIFIED) TRANSONIC WIND JUNNEL	020-SCALE JET PLUME MODEL TED SSV CONFIGURATION 14DC		RESULTS OF TESTS USING A 0.36-SCALE MODEL(76-0) OF THE SPA DRBITER IN THE NASA/AMES RESEARCH CENTER 40 BY 80-FOOT SUR (0a100)	RESULTS OF TESTS USING A 0.36-SCALE MODEL(76-D) OF THE SPORESITER IN THE NASA/AMES RESEARCH CENTER 40 BY 80-F00T SUITED (0A100)	RESULTS OF A CARRIER AIRCRAFT VERIFICATION FEST IN THE BOEING B TRANSONIC TUNNEL USING A O.03-SCALE 747 CAM/ORBITER MODEL 45-0
NASA SERIES NUMBER	IA72	1A72	1A72	1A72	1A72	IA72	1A72	LA60A . A60R/1A60C	DA 100	0A 100	CA6
	v-03	V-04	V-05	90-A	V-07	N- 08	60-A	ELLED	V-01	V-02	V-01
NASA CR NUMBER	151,047	151,048	151,049	151,050	.51,051	151,052	151,053	TASK CANCELLED	167,364	167,365	147,630
DMS-DR REPORT	NUMBER 	2258	2258	2258	8522 B-34	2258	2258	2259	2260	2261	2262

SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE	RESULTS OF A CARRIER AIRCRAFT VERIFICATION TEST IN THE BOEING B X 1 2 FOOT TRANSONIC TUNNEL USING A O 03-SCALE 747 CAM/ORBITER MODEL 45-0	RESULTS OF HEAT TRANSFER TESTS ON A O.0175-SCALE SPACE SHUTTLE ORBITER MODEL (56-0) IN THE AEDC VKF '8' HYPERSONIC WIND TUNNEL (0H74)	TRANSONIC STABILITY AND CONTROL CHARACTERISTICS DF A 0.015-SCALE (REMOTELY CONTROLLED ELEVON) MODEL 49-0 OF THE SPACE SHUTTLE ORBITER TESTED IN THE NASA/LARC 8-F001 TPT (LA62)	RESULTS OF TESTS USING A O 030-SCALE MODEL (45-0) OF THE SPACE SHUTTLE VEHICLE ORBITER IN THE NASA/ARC 12-FOOT PRESSURE TUNNEL (0A159)	TRANSONIC-SUPERSOMIC HIGH REYNOLDS NUMBER STABILITY AND CONTROL CHARACTERISTICS OF A 0.015-SCALE (REMOTELY CONTROLLED ELEVON) MODEL 44-0 OF THE SPACE SHUTTLE ORBITER TESTED IN THE VSD HIGH SPEED WIND TUNNEL	RESULTS OF TEST MA22 IN THE NASA/LARC 31-INCH CFHT ON AN O.O10-SCALEMDDEL (32-0) OF THE SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE RCS JET FLOW FIELD INTERACTION AND TO INVESTIGATE RT REAL GAS EFFECTS	RESULTS OF TEST MA22 IN THE NASA/LARC 31-INCH CFHT ON AN O.O.O.O-SCALEMODEL (32-0) OF THE SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE RCS JET FLOW FIELD INTERACTION AND TO INVESTIGATE RT REAL GAS EFFECTS	RESULTS OF TEST MA22 IN THE NASA/LARC 31-INCH CFHT ON AN O O10-SCALEMDSEL (32-0) OF THE SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE RCS JET FLOW FIELD INTERACTION AND TO INVESTIGATE RT REAL GAS EFFECTS	RESULTS OF TEST MA22 IN THE NASA/LARC 31-INCH CFHT ON AN O.O.O.O.O.SCALEMDDEL (32-0) OF THE SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE RCS JET FLOW FIELD INTERACTION AND TO INVESTIGATE RT REAL GAS EFFECTS	RESULTS OF AN INVESTIGATION OF AERODYNAMIC FORCES, MOMENTS, AND PRESSURES ON 0.03-SCALE MODELS OF THE MATED SPACE SHUTTLE ORBITER AND CARRIER AIRCRAFT (MODEL NUMBERS AX1319P-1 AND 47-0) IN THE BOEING TRANSUNIC WIND TUNNEL (CA9).	RESULTS OF AN INVESTIGATION OF AERODYNAMIC FORCES, MOMENTS, AND PRESSURES ON 0.03-SCALE MODELS OF THE MATED SPACE SHUTTLE ORBITER AND CARRIER AIRCRAFT (MODEL MINBERS AX1319P-1 AND 47-0) IN THE BOEING FRANSONIC WIND TUNNEL (CA9)
NASA SERIES NUMBER		0H74	LA62	0A 159	LA67	MA22	MA22	MA22	MA22	CA9/CA9P	
	v-02					V-01	V-02	V-03	V-04	V-01	V-02
NASA CR: NUMBER	147,631	144 . 596	141,843	141.832	144,607	147,604	147,605	147,606	147,607	151,396	151, 397
DMS-DR REPORT NUMBER	2262	2263	2264	2265.	2266 W	-35 2501	2267	2267	2267	2268	2268

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LOW SUPERSONIC STABILITY AND CONTROL CHARACTERISTICS OF A 0.015-SCALE REMOTELY RESULTS OF AN AERODYNAMIC INVESTIGATION OF A SPACE SHUTTLE ORBITER/747 CARRIER FLIGHT TEST CONFIGURATION TO DETERMINE SEPARATION CHARACTERISTICS UTILIZING O.0125-SCALE MODELS (48-0/AX13181-1) IN THE LTV 4X4-FOOT HIGH SPEED WIND RESULTS OF AN AERODYNAMIC INVESTIGATION OF A SPACE SHUTTLE ORBITER/747 CARRIER FLIGHT TEST CONFIGURATION TO DETERMINE SEPARATION CHARACTERISTICS UTILIZING O.0125-SCALE MODELS (48-0/AX1318I-1) IN THE LTV 4X4-FOOT HIGH SPEED WIND SUPERSONIC STABILITY AND CONTROL CHARACTERISTICS OF A O.015 SCALE MODEL 69-0 OF THE SPACE SHUTTLE ORBITER WITH FOREBODY RSI MODIFICATIONS IN THE NASA/LARC 4-FOOT UPWT (LEGS 1 AN) 2) RESULTS OF AN INVESTIGATION OF BERODYNAMIC FORCES, MOMENTS, AND PRESSURES ON 0.03-SCALE MODELS OF THE MATED SPACE SHUTTLE ORBITER AND CARRIER AIRCRAFT (MODEL NUMBERS AX1319P-1 AND 47-0) IN THE BOEING TRANSONIC WIND TURNEL (CA9) RESULTS OF AN INVESTIGATION OF AEPODYNAMIC FORCES, MOMENTS, AND PRES URES ON 0.03-SCALE MODELS OF THE MATED SPACE SHUTTLE ORBITER AND CARRIER AIRLKAFT RESULTS OF AN INVESTIGATION OF AERODYNAMIC FORCES. MOMENTS, AND PRESSURES ON O.03-SCALE GODELS OF THE MATED SPACE SHUTTLE ORBITER AND CARRIER AIRCRAFT (MODEL NUMBERS AX1319P-1 AND 47-0) IN THE BOEING TRANSONIC WIND TUNNEL (CA9) (MODEL NUMBERS AX1319P-1 AND 47-0) IN THE BDEING TRANSONIC WIND TURNEL (CA9) RESULTS OF AN INVESTIGATION OF EXTERNAL TANK SEPARATION EFFECTS USING AN 0.010-SCALE MODEL (52-01) SPACE SHUTTLE VEHICLE IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER VON KARMAN FACILITY TUNNEL B RESULTS OF AN INVESTIGATION OF EXTERNAL TANK SEPARATION EFFECTS USING AN O.010-SCALE MODEL (52-0T) SPACE SHUTTLE VEHICLE IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER VON KARMAN FACILITY TUNNEL B TRANSONIC HIGH REYNOLDS NUMBER STABILITY AND CONTROL CHARACTERISTICSOF A O 015-SCALE REMOTELY CONTROLLED ELEVON MODER (44-0) OF THE SPACE SHUTTLE ORBITER TESTED IN THE CALSPAN 8-FOOT TWI SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE CONTROLLED ELEVON MODEL (49-0) OF THE SPACE SHUTTLE ORBITER (LAGSA) TUNNEL (CA26) CA9/CA9P CA9/CA9P CA9/CA9P LA71A/B SERIES NUMBER NASA LA63A LA70 1A1.14 IA114 CA26 **CA26** V-03 V-04 V-05 V-01 V-02 V-01 V-02 51,398 151,399 151,400 144,579 147,624 15.1,044 NUMBER 15.1.077 151,078 144,612 144,613 NASA DMS-DR Report NUMBER 2268 2268 2268 2269 **9**2270 2271 2272 22.72 2273 2273

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TUNNEL (CA26)

DMS-DR	NASA		NASA	
REPORT	CR. NUMBER		ES ER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2273	144.614	V-03	CA26	IGATION OF A SPACE SHUTTLE ORBITER/747 ERMINE SEPARATION CHARACTERISTICS UTIL I-1) IN THE LTV 4X4-FOOT HIGH SPEED WI
2273	144,615	V-04	CA26	RESULTS OF AN AERODYNAMIC INVESTIGATION OF A SPACE SHUITLE ORBITER/747 CARRIER FLIGHT TEST CONFIGURATION TO DETERMINE SEPARATION CHARACTERISTICS UTILIZING O.0125-SCALE MODELS (48-D/AX1318I-1) IN THE LTV 4X4-FOOT HIGH SPEED WIND TUNNEL (CA26)
2273	144,616	V-05	CA26	RESULTS OF AN AEROBYNAMIC INVESTIGATION OF A SPACE SHUTTLE ORBITER/747 CARRIER FLIGHT TEST CONFIGURATION TO DETERMINE SEPARATION CHARACTERISTICS UTILIZING O.0125-SCALE MODELS (48-0/AX13181-1) IN THE LTV 4X4-FOOT HIGH SPEED WIND TUNNEL (CA26)
B-3	144,593		FA14	AN INVESTIGATION OF DRAG REDUCTION FAIRINGS ON THE SPACE SHUTTLE VEHICLE 5-CONFIGURATION (MODEL 74-OFS) IN THE MSFC 14-INCH TRISONIC WIND TUNNEL
2 22.75	144,603	V-0.	CA23E	RESULTS OF AN EXPERIMENTAL INVESTIGATION TO DETERMINE SEPARATION CHARACTERISTICS FOR THE ORBITER/747 USING A O.O125-SCALE MODEL (48-O AX1318I-1 747) IN THE AMES RESEARCH CENTER 14-FOOT WIND TUNNEL (CA23B)
2275	144,604	V-02	CA23B	RESULTS OF AN EXPERIMENTAL INVESTIGATION TO DETERMINE SEPARATION CHARACTERISTICS FOR THE DRBITER/747 USING A O.O125-SCALE MODEL (48-O AX1318I-1 747) IN THE AMES RESEARCH CENTER 14-FOOT WIND TUNNEL (CA23B)
2276	151,055		FH13	HEAT TRANSFER AND SURFACE PRESSURE DATA OBTAINÉD ON A .0429 SCALE MODEL SSV EXTERNAL TANK NOSE SECTION AT MACH NUMBERS FROM 2.5 TO 5.5 (FH13)
22.77	144,579		SA taf	FORCE TEST OF A 0.88 PERCENT SCALE 142-INCH DIAMETER SOLID ROCKET BOOSTER (MSFC MODEL NUMBER 461) IN THE NASA/MSFC HIGH REYNOLDS NUMBER WIND TUNNEL
2278	TASK CANCELLED	ELLED	LAGT	LOW-SUBSONIC STABILLIY AND CONTROL CHARACTERISTICS OF A 0.010-SCALE REMOTELY CONTROLLED ELEVON MODEL (49-0) OF THE SPACE SHUTTLE ORBITER IN THE LANGLEY RESEARCH CENTER LOW TURBULENCE PRESSURE TUNNEL
22.79	144,606		LA63B	HIGH SUPERSONIC STABILITY AND CONTROL CHARACTERISTICS OF A O.015-SCALE (REMOTELY CONTROLLED ELEVON) MODEL 49-0 OF THE SPACE SHUTTLE ORBITER TESTED IN THE NASA/LARC 4-FOOT UPWT(LEG 2)
2280	144,582		LA28	HEAT-FLUX GAGE MEASUREMENTS ON A FLAT PLATE AT A MACH NUMBER OF 4.6 IN THE VSD HIGH SPEED WIND TUNNELA FEASIBILITY TEST (LA28)

DMS-DR REPORT NUMBER	NASA CR' NUMMER	1	NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2281	147,621	,,,,,,	LAGG	IC STABILITY AND CONTROL CHARACTERISTICS OF A 0.015-SCALE (REMOTELY LLED ELEVON) MODEL 44-0 OF THE SPACE SHUTTLE ORBITER TESTED IN THE RC 12-FOOT PRESSURE TUNNEL (LAGG)
2282	151,407		1H34	BASE PRESSURE AND HEAT TRANSFER TESTS OF THE O.0225-SCALE SPACE SHUTTLE PLUME SIMULATION MODEL 19-0TS IN THE NASA-LEWIS 10X10 FOOT SWT
2283	147.649		MAj4	A LOW SPEED WIND TUNNEL TEST OF A O.OSO SCALE MODEL OF SHUTTLE ORBITER (MODEL O898) TO INVESTIGATE THE LONGITUDINAL AND LATERAL DIRECTIONAL EFFECTS OF CANARD AND TAIL CONFIGURATIONAL MODIFICATIONS IN THE LIV LSWT
2284	151,035	V-01	1S2A/B	AERODYNAMIC NOISE OF THE O.035-SCALE INTEGRATED SPACE SHUTTLE VEHICLE MODEL (84-DTS) IN THE NASA-AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS (1S2A/B)
B 2284	151,036	V-02	152A/B	AERODYNAMIC NOISE OF THE O.035-SCALE INTEGRATED SPACE SHUFTLE VEHICLE MODEL (84-0TS) IN THE NASA-AMES RESEARCH CENTER UNITARY PLAN WIND JUNNELS (1S2A/B)
2285	144,595		OHSOA	RESULTS OF TESTS USING THE PHASE CHANGE PAINT TECHNIQUE ON 0.04 SCALE 50 PERCENT FOREBODY MODELS (82-0) OF THE ROCKWELL SPACE SHUTTLE ORBITER
2286	147,625		0A220	RESULTS OF AN AIR PROBE INVESTIGATION UTILIZING A 0.10 SCALE ORBITER (MODEL 57-0) FOREBODY IN THE AMES RESEARCH CENTER 14 FOOT WIND TUNNEL (0A220)
2287			0513	** DOCUMENTATION NOT COMPLETE **
2288	151,384		0H64	RESULTS OF BASE HEATING INVESTIGATIONS ON A O.O4 SCALE SPACE SHUTTLEORBITER BASE (MODEL 25-0) IN THE NASA/LARC SPACE POWER FACILITY
2289	147,611	V-01	DA 163	RESULTS OF A LANDING LOADS TEST USING A 0.0405-SCALE MODEL (16-0) OF THE SPACE SHUTTLE ORBITER IN THE ROCKWELL INTERNATIONAL NAAL WIND TUNNEL (DA163)
2289	147,612	V-02	OA 163	RESULTS OF A LANDING LOADS TEST USING A O.0405-SCALE MODEL (16-0) OF THE SPACE SHUTTLE ORBITER IN THE ROCKWELL INTERNATIONAL NAAL WIND TUNNEL (04163)
2289	147,613	N-03	OA 163	RESULTS OF A LANDING LOADS TEST USING A 0.0405-SCALE MODEL (16-0) OF THE SPACE SHUTTLE ORBITER IN THE ROCKWELL INTERNATIONAL NAAL WIND TUNNEL (02163)
2289	147,614	V -04	OA 163	RESULTS OF A LANDING LOADS TEST USING A O.0405-SCALE MODEL (16-0) OF THE SPACE SHUTTLE ORBITER IN THE ROCKWELL INTERNATIONAL NAAL WIND TUNNEL (04163)

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RESULTS OF TESTS OF A SPACE SHUTTLE ORBITER FERRY CONFIGURATION USING A 140A/B O.0405-SCALE MODEL (43-0) IN THE ROCKWELL INTERNATIONAL 7.75 X 11 FOOT LOW SPEED WIND TUNNEL (0A172) RESULTS OF TESTS OF A SPACE SHUTTLE ORBITER FERRY CONFIGURATION USING A 140A/B O.0405-SCALE MODEL (43-0) IN THE ROCKWELL INTERNATIONAL 7.75 X 11 FOOT LOW SPEED WIND TUNNEL (0A172) 747 CAM AND MATED AERODYNAMIC CHARACTERISTICS INVESTIGATION FOR THE 0.04 SCALE 747 CAM AA THE 0.0405 SCALE SPACE SHUTTLE ORBITER IN THE NASA LANGLEY V/STOL TRANSITION MATED AERODYNAMIC CHARACTERISTICS INVESTIGATION FOR THE 0.04 SCALE 747 CAM AN THE 0.0405 SCALE SPACE SHUTTLE ORBITER IN THE NASA LANGLEY V/STOL TRANSITION RESEARCH WIND TUNNEL RESULTS OF TESTS USING A 0.010-SCALE SSV MODEL 75-DTS IN THE AEDC VKF TUNNEL MATED AERDDYNAMIC CHARACTERISTICS INVESTIGATION FOR THE 0.04 SCALE 747 CAM AP THE 0.0405 SCALE SPACE SHUTTLE ORBITER IN THE NASA LANGLEY V/STOL TRANSITION MODEL MODEL RESULTS OF AN INVESTIGATION OF THE SPACE SHUTTLE INTEGRATED VEHICLE AERODYNAMIC HEATING CHARACTERISTICS OBTAINED USING THE 0.0175-SCALE 60-0TS IN AEDC TUNNEL A DURING TESTS IH418 RESULTS OF AN INVESTIGATION OF THE SPACE SHUTTLE INTEGRATED VEHICLE AERODYNAMIC HEATING CHARACTERISTICS OBTAINED USING THE 0.0175-SCALE 60-0TS IN AEDC TUNNEL A DURING TESTS IH418 RESULTS OF AN INVESTIGATION OF THE SPACE SHUTTLE INTEGRATED VEHICLE AERODYNAMIC HEATING CHARACTERISTICS OBTAINED USING THE 0.0175-SCALE 60-0TS IN AEDC TUNNEL A DURING TESTS IH41B RESULTS OF AN INVESTIGATION OF THE SPACE SHUTTLE INTEGRATED VEHICLE AERODYNAMIC HEATING CHARACTERISTICS OBTAINED USING THE 0.0175-SCALE 60-DTS IN AEDC TUNNEL A DURING TESTS IH41B SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE ** DOCUMENTATION NOT COMPLETE TO BE PUBLISHED AT LARC ** RESEARCH WIND TUNNEL RESEARCH WIND TUNNEL NASA SERIES NUMBER **DA172** IH41B **0A172** IH4 1B 1H41B IH4 1B LA36B IA40 LA79 CAB CA8 CA8 V-03 V-04 V-03 V-02 V-01 V-02 V-02 V-01 V-01 FM-X72661 151,381 151,071 151,070 151,072 147.642 147,643 160,822 160,823 151,069 147,641 NUMBER NASA DMS-DR REPORT NUMBER 2295 2295 2295 \$233 2295 2290 2290 2290 £2292 2294 2294 2291

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2295	151,073	3 V-05	IH41B	LTS OF AN INVESTIGATION OF T DYNAMIC HEATING CHARACTERIST TS IN AEDC TUNNEL A DURING T
2296	147.609	9 V-01	LAST	SHUTTLE MODEL TAILCONE PRESSURE DISTRIBUTION AT LOW SUBSONIC SPEEDS OF A O.03614-SCALE MODEL IN THE NASA/LARC LOW TURBULENCE PRESSURE TUNNEL (LAB1)
2296	147.610	V-02	LA81	SPEEDS
2297.	147,628		LA45A/B	HIGH SUPERSONIC AERODYNAMIC CHARACTERISTICS OF FIVE IRREGULAR PLANFORM WINGS WITH SYSTEMATICALLY VARYING WING FILLET GEOMETRY TESTED IN THE NASA/LARC 4-FOOT UPWT (LEG 2) (LA455/B)
8627 B-40	151,409	•	La73a/La73B	LOW SPEED STABILITY AND CONTROL CHARACTERISTICS OF A 0.015 SCALE MODEL 69-D DF THE SPACE SHUTTLE ORBITER WITH FOREBODY RSI MODIFICATIONSIN THE NASA/LARC LOW TURBULENCE PRESSURE TUNNEL (LA73A/B)
2299	TM-X3497	74	LA80	DYNAMIC STABILITY CHARACTERISTICS OF THE COMBINATION SPACE SHUTTLE DORBITER AND FERRY COMBINATION
2300	147,629	_	LA618	LOW-SURSONIC STABILITY AND CONTROL CHARACTERISTICS OF A O.O15-SCALE REMOTELY CONTROLLED ELEVON MODEL (44-0) OF THE SPACE SHUTTLE GRBITER IN THE LANGLEY RESEARCH CENTER LOW TURBULENCE PRESSURE TUNNEL
2301	144.605		OH54A	RESULTS OF PHASE CHANGE PAINT HEAT TRANSFER JESTS UTILIZING 0.040 SCALE 50 PERCENT FOREBODY MODELS (NO. 82-0) OF THE ROCKWELL IN ERNATIONAL SPACE SHUTTLE ORBITER IN AEDC VKF HYPERSONIC TUNNEL B. 1
2302	167,340	V-0.1	0A174	RESULTS OF TESTS USING A 0.36-SCALE MODEL(76-0) OF THE SPACE SHUTTLE ORBITER VEHICLE 101 IN THE NASA/AMES RESEARCH CENTER'S 40 X 80 SUBSONIC WIND TUNNEL (0A174)
2302	167,341	V-02	OA174	RESULTS OF TESTS USING A 0.36-SCALE MODEL(76-0) OF THE SPACE SHUTTLE ORBITER VEHICLE 101 IN THE NASA/AMES RESEARCH CENTER'S 40 X 80 SUBSONIC WIND TUNNEL (0A174)
2303	144.618		0H75	RESULTS OF PHASE CHANGE PAINT TESTS OF O.040 SCALE 50 PERCENT FOREBODY MODELS (82-0) OF THE SPACE SHUTTLE ORBITER IN THE AEDC VKF 'B' HYPERSONIC WIND TUNNEL

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2304	150,846			RESULTS OF TESTS TO EVALUATE ARC 40X80-FOOT TUNNEL SUPPORT STRUT TARES ON THE SPACE SHUTTLE VEHICLE WITH TAIL CONE USING A 0.03-SCALE MODEL (45-0) IN THE NASA/ARC 12-FOOT PRESSURE WIND TUNNEL (0A173)
2305	151,059	V-01	LA76	HIGH REYNOLDS NUMBER TRANSONIC STABILITY AND CONTROL CHARACTERISTICSOF A 0.015 SCALE(REMOTELY CONTROLLED ELEVON) MODEL 44-0 OF THE SPACESHUTTLE ORBITER TESTED IN THE VSD HICH SPEED TUNNEL(LA76)
2305	151,060	V-02	LA76.	HIGH REYNOLDS NUMBER TRANSONIC STABILITY AND CONTROL CHARACTERISTICSDF A O.015 SCALE(REMOTELY CONTROLLED ELEVON) MODEL 44-0 OF THE SPACESHUITLE ORBITER TESTED IN THE VSD HIGH SPEED TUNNEL(LA76)
2306	167,354	V-01	IA135A/B/C	RESULTS OF TESTS ON THE SPACE SHUTTLE LAUNCH CONFIGURATION USING THE O.O3 SCALE MODEL 47-0TS IN THE NASA/AMES UNITARY PLAN WIND TUNNEL (IA135A/B/C)
908 8-41	167,355	V-02	1A135A/B/C	RESULTS OF TESTS ON THE SPACE SHUTTLE LAUNCH CONFIGURATION USING THE 0.03 SCALE MODEL 47-0TS IN THE NASA/AMES UNITARY PLAN WIND TUNNEL (TA135A/B/C)
2306	167,356	V-03	1A135A/B/C	RESULTS OF TESTS ON THE SPACE SHUTTLE LAUNCH CONFIGURATION USING THE 0.03 SCALE MODEL 47-0TS IN THE NASA/AMES UNITARY PLAN WIND TUNNEL (IA135A/B/C)
2307	160,840		CA14A	RESULTS OF EXPERIMENTAL AERODYNAMIC INVESTIGATION ON A 0.03 SCALE MODEL BOEING 747 CAM WITH SPACE SHUTTLE ORBITER IN THE BOEING 8X12 FOOT TRANSONIC WIND TUNNEL (CA14A)
2307	160,841	√ -02	CA14A	RESULTS OF EXPERIMENTAL AERODYNAMIC INVESTIGATION ON A O.O3 SCALE MODEL BOEING 747 CAM WITH SPACE SHUTTLE ORBITER IN THE BOEING 8X12 FOOT TRANSONIC WIND TUNNEL (CA14A)
2308	147,636		3H1.	AN EXPERIMENTAL DETERMINATION IN THE CALSPAN LUDWIEG TUBE OF THE BASE ENVIRONMENT OF THE INTEGRATED SPACE SHUTTLE VEHICLE AT SIMULATED MACH 4.5 FLIGHT CONDITIONS (TEST 1H5 OF MODEL 19-OTS)
2309	147,644		LA72	TRANSONIC STABILITY AND CONTROL CHARACTERISTICS OF A 0.015 SCALE MODEL 69-0 OF THE SPACE SHUTTLE ORBITER WITH FOREBODY RSI MODIFICATION IN THE NASA/LARC 8-FOOT TPT (LA72)
2310	151,083	6 - >	SA 14FB	REENTRY STATIC STABILITY CHARACTERISTICS OF A 0.00548 SCALE MODEL DFA RIGHT HAND 146-INCH DIAMETER SOLID ROCKET BOOSTER (MSFC MODEL 486)REENTRY CONFIGURATION AS DETERMINED FROM TESTS IN THE NASA/MSFC 14-INCH TRISONIC WIND TUNNEL

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DMS-DR REPORT NUMBER	NASA CR NUMBER	1 1 1	NASA SERIES NUMBER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2310	15:1,084	v -02	SA14FB	REENTRY STATIC STABILITY CHARACTERISTICS OF A O.00548 SCALE MODEL OFA RIGHT HAND 146-INCH DIAMETER SOLID ROCKET BOOSTER (MSFC MODEL 486)REENTRY CONFIGURATION AS DETERMINED FROM TESTS IN THE NASA/MSFC 14-INCH TRISONIC WIND TUNNEL
2314	147.620		LA78/LA87/LA88	RESULTS FROM INVESTIGATIONS IN THREE NASA/LARC HYPERSONIC WIND TUNNELS ON A O.004-SCALE MODEL SPACE SHUTTLE ORBITER (MODEL 13P-0)TO DET ERMINE REAL GAS EFFECTS (LA78, LA87, LA88)
2312	151,075	V-01	1147	RESULTS OF AN INVESTIGATION OF THE SPACE SHUTTLE SOLID ROCKET BOOSTER AERODYNAMIC HEATING CHARACTERISTICS OBTAINED USING THE O.O.175-SCALE MODEL 60-015 IN AEDC TUNNEL A DURING TESTS 11447
24.62 B=	151,076	V-02	1147	RESULTS OF AN INVESTIGATION OF THE SPACE SHUTTLE SOLID ROCKET BOOSTER AERODYNAMIC HEATING CHARACTERISTICS OBTAINED USING THE O.O175-SCALE MODEL 60-0TS IN AEDC TUNNEL A DURING TESTS IH47
-616. -62. 42.	151,041	V-04	FH14	RESULTS OF WIND TUNNEL TESTS TO DETERMINE HEAT TRANSFER RATES ON A .0275 SCALE SPACE SHUTTLE EXTERNAL TANK WITH A 10 DEG/40 DEG DOUBLE CONE-DGIVE NOSE IN THE NASA/ARC 3.5 HYPERSONIC TUNNEL
2313.	15.1,042	V-02	FH14	RESULTS OF WIND TUNNEL TESTS TO DETERMINE HEAT TRANSFER RATES ON A .0275 SCALE SPACE SHUTTLE EXTERNAL TANK WITH A 10 DEG/40 DEG DOUBLE CONE-OGIVE NOSE IN THE NASA/ARC 3.5 HYPERSONIC TUNNEL
23:13	151,043	V-03	FH14	RESULTS OF WIND TUNNEL TESTS TO DETERMINE HEAT TRANSFER RATES ON A .0275 SCALE SPACE SHUTTLE EXTERNAL TANK WITH A 10 DEG/40 DEG DOUBLE CONE-DGIVE NOSE IN THE NASA/ARC 3.5 HYPERSONIC TUNNEL
23:14	15.1, 406	•	DA 176	INVESTIGATION OF SUPPORT SYSTEM EFFECTS ON ORBITER LOW SPEED AEORDYNAMIC CHARACTERISTICS USING 0.0405-SCALE MODEL 43-0 IN THE NAAL LOW SPEED WIND TUNNEL
2315	147,623		IA141	RESULTS OF AN INVESTIGATION OF REYNOLDS NUMBER EFFECTS ON INTEGRATEDVEHICLE ELEVON HINGE MOMENTS AND WING PANEL LOADS OBTAINED WITH O.010-SCALE MODEL 72-0TS IN THE ROCKWELL TRISONIC WIND TUNNEL
2316	147,622		IA137	RESULTS OF TEST IA137 IN THE NASA/ARC 14 FOOT TRANSONIC WIND TUNNEL OF THE O.O. SCALE EXTERNAL TANK FOREBODY (MODEL 68-T) TO DETERMINE AUXILIARY AERODYNAMIC DATA SYSTEM FEASIBILITY

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NUMBER	NUMBER		NUMBER	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			SPACE SHUTTLE VEHICLE WIND TUNNEL
2317	151,787		OH53A	AFCHITC OF TEST OF THE PARTY OF
				THE ORBITER FOREBODY ASCENT AERODYNAMIC HEATING RA (83-0) IN THE AMES RESEARCH CENTER 3 5 FOOT HARDS
23.18	147,646	V-01	LA75	HIGH SUPERSONIC STABILITY AND CONTROL
2318	147 647	:		(REMOTELY CONTROLLED ELEVON) MODEL 44-0 SPACE SHUT NASA/LARC 4-FOOT UPWT (LEG 2) (LA75)
-		ZO- ^	LA75.	HIGH SUPERSONIC STABILITY AND CONTROL CHARACTERIST
2319	151,771		1443	MASA/LARC 4-FOOT UPWT (LEG 2) (LA75) HEAT TDANGED AND ACCURAGE SHOW
0262 B∸4	151,390	V-01	DA 169	IN THE CALSPAN HYPERVELOCITY SHOCK TUNNELS (1143)
33 33		- :		RESULIS UF LESTS USING A O.0125-SCALE MODEL(70-0T)O ORBITER IN THE AEDC VKF TUNNEL B (0A169)
	195,161	^- 05	OA 169	RESULTS OF TESTS USING A 0.0125-SCALE MODEL(70-01)0
2320	151,392	V-03	OA 169	RESULTS OF TESTS USING A O MAR COAL TO THE
2324	151,410	, ,	- 2500	ORBITER IN THE AEDC VKF TUNNEL B (0A169)
		5	л С	RESULTS OF TEST OH69 OBTAINED IN THE AEDC VKF HYPERS INFRARED SCANNING METHOD TO OBTAIN HEAT TRANSFER DAT 82-0 OF THE SPACE SHITTLE ENDERDOW
2324	151,411	V-02	69н0	RESULTS OF TEST OHE9 OBTAINED IN THE AEDC VKF HYPERS
2322	150, 847			82-0 OF THE SPACE SHUTTLE FOREBOCY
2323	45.000		0A228 -	RESULTS OF TEST DA228 USING THE SSV VEHICLE 102 0.10 57-0 IN THE NAAL LOW SPEED WIND TUNNEL
			IA94A	RESULTS OF INVESTIGATIONS CONDUCTED IN THE LARC 4-FOR INTERESTREE AS INTERESTREE TO STATE OF 12-015 MODE!
2324	151,040		IA94B	RESULTS OF INVESTIGATIONS CONTRICTS
			-	TUNNEL LEG NO 2 HETAN THE CONDUCTED IN THE LARC 4.

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YSTEM (RCS) NOZZLE EFFECTS DN RATES USING A O.O4-SCALE MODEL RSONIC WIND TUNNEL (OH53A)

ITICS OF A O.O15-SCALE

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SPACE SHUTTLE MODEL (59-DT)

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OF THE SPACE SHUTTLE VEHICLE RSONIC TUNNEL B USING THE NATA ON THE O.040 SCALE MODEL

RSONIC TUNNEL B USING THE ATA ON THE O.O40 SCALE MODEL

O SCALE FOREBODY MODEL NO.

OOT UNITARY PLAN WIND . OF THE SPACE SHUTTLE

TUNNEL LEG NO. 2 USING THE O.010-SCALE 72-0TS MODEL OF THE SPACE SHUTTLE INTEGRATED VEHICLE

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2325	147,645	1 1 1 1	SAI4FA	AERODYNAMIC CHARACTERISTICS OF A O.00563 SCALE 142-INCH DIAMETER SOLID ROCKET BOOSTER (MSFC MODEL 449 AND 480) WITH SIDE MOUNTED STINGS IN THE NASA/MSFC 14 INCH TRISONIC WIND TUNNEL
2326	151,037	V-01	1893	RESULTS OF INVESTICATIONS CONDUCTED IN THE LARC 8-FOOT TRANSONIC PRESSURE TUNNEL USING THE 0.010-SCALE 72-015 MODEL OF THE SPACE SHUTTLE INTEGRATED VEHICLE
2326	151,038	V-02	1A93	RESULTS OF INVESTICATIONS CONDUCTED IN THE LARC 8-FOOT TRANSONIC PRESSURE TUNNEL USING THE 0.010-SCALE 72-01S MODEL OF THE SPACE SHUTTLE INTEGRATED VEHICLE
2327	151,079	V-01	1A22	RESULTS OF TESTS USING 0.0125-SCALE MODEL (70-01) OF THE SPACE SHUTTLE VEHICLE ORBITER IN THE AEDC VKF TUNNEL B
B-4	151,080	V-02	IA22	RESULTS OF TESTS USING 0.0125 SCALE MODEL (70-07) OF THE SPACE SHUTTLE VEHICLE ORBITER IN THE AEDC VKF TUNNEL B
£282 4	151,081	V -03	IA22	RESULTS OF TESTS USING O.0125-SCALE MODEL (70-0T) OF THE SPACE SHUTTLE VEHICLE ORBITER IN THE AEDC VKF TUNNEL B
23.28	TN D-8233		LA34	EFFECT OF A SURFACE-TO-GAP TEMPERATURE DISCONTINUITY ON THE HEAT TRANSFER TO REUSABLE SURFACE INSULATION TILE GAPS
2329	160.837		DA224	CALBIRATION RESULTS OF THE BASELINE AIR DATA PROBES AT THE LANGLEY 16-FDOT TRANSONIC WIND TUNNEL USING A 0.10 SCALE ORBITER FOREBODY MODEL 102 LINES (0A224)
2330	147,637		0H52	RESULTS OF A FLOW FIELD SURVEY CONDUCTED USING THE O.0175 SCALE ORBITER MODEL 29-0 IN THE AEDC VKF TUNNEL B DURING TEST OH52
2331	160,838	V-01	SAIIF	STATIC STABILITY AND PRESSURE DATA FROM WIND TUNNEL TEST\$ OF A .028-SCALE (MSFC MODEL 483) SPACE SHUTTLE SRB AT REENTRY ATTITUDES IN THENASA/ARC UNITARY PLAN WIND TUNNELS (SA11F)
2331	160, 839	V-02	SAIIF	STATIC STABILITY AND PRESSURE DATA FROM WIND TUNNEL TESTS OF A .028-SCALE (MSFC MODEL 483) SPACE SHUTTLE SRB AT REENTRY ATTITUDES IN THENASA/ARC UNITARY PLAN WIND TUNNELS (SA11F)
2332	15.1, 373		CA 13	RESULTS OF AERODYNAMIC FORCE AND MOMENT TESTS OF O.O3-SCALE MODELS (AX13191-3 AND 45-O) OF THE SPACE SHUTTLE ORBITER AND CARRIER IN THE NASA/ARC 14-FOOT TRANSONIC WIND TUNNEL (CA13)

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DMS-DR REPORT NUMBER	NASA ÇR NUMBER		ES ER	SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE
2333	151,374	V-01	0A175	WIND TUNNEL TEST DA175 OF THE O.030-SCALE SSV DRBITER MODEL (47-0) IN THE 11 X 11-FOOT LEG OF THE NASA/ARC UNITARY PLAN WIND TUNNEL (0A175)
2333.	151.375	V-02	04175	WIND TUNNEL TEST DA175 OF THE O 030-SCALE SSV ORBITER MODEL (47-0) IN THE 11 X 11-FOOT LEG OF THE NASA/ARC UNITARY PLAN WIND TUNNEL (04175)
2333	151,376	V-03	0A175	WIND TUNNEL TEST DA175 OF THE O 030-SCALE SSV ORBITER MODEL (47-0) IN THE 11 X 11-FOOT LEG OF THE NASA/ARC UNITARY PLAN WIND TUNNEL (04175)
2334	147,648		SA 16F	AN INVESTIGATION OF THE AERODYNAMIC CHARACTERISTICS OF A O.OO548 SCALE MODEL (MODEL NO. 486) OF THE SPACE SHUTTLE 146-INCH DIAMETER SOLID ROCKET BOOSTER AT ANGLES OF ATTACK FROM 113 TO 180 DEGREES IN THE AEDC PWI 4-FOOT TRANSONIC WIND TUNNEL
582 B∸45	151,783		IA140A/B	RESULTS OF EXPERIMENTAL INVESTIGATIONS IN THE MSFC TWT TO DETERMINE EFFECTS OF A MULTIPLE STING SUPPORT SYSTEM ON THE MATED VEHICLE AERODYNAMICS UTILIZING A O. 004 SCALE (74-01S, 77-0) SHUTTLE VEHICLE 5 (IA140 A/B)
2336	167,375		LA145	INVESTIGATION OF THE HIGH ANGLE OF ATTACK AERODYNAMICS OF A SPACE SHUTTLE ORBITER(LARC .0098 SCALE MODEL) IN THE LARC UPWT AT MACH NUMBERS FROM 1.5 TO 4.5(LA145)
233.7	151,786		04236	A VERIFICATION STUDY OF THREE AMES RESEARCH CENTER PITOT-STATIC PROBES IN THE ROCKWELL INTERNATIONAL NAAL LOW SPEED WIND TUNNEL
2338	147,639		cs3	RESULTS OF THE LOW SPEED AEROELASTIC BUFFET TEST WITH A O.O46-SCALE MODEL (747-AX1322D-3/ORBITER 8-0) OF THE 747 CAM/ORBITER IN THE UNIVERSITY OF WASHINGTON WIND TUNNEL
2339			0532	** DOCUMENTATION NOT COMPLETE **
2340	160,501	V-0-1	0H98	RESULTS OF TESTS ON A O. 0175-SCALE MODEL (60-0) OF THE SPACE SHUTTLE ORBITER TO DETERMINE RE-ENTRY MODE CONVECTIVE HEAT TRANSFER RATES ON THE UPPER WING SURFACE AND SSME NOZZLES IN THE AEDC VKF 'B' HYPERSONIC WIND TUNNEL (0H98)
2340	160,502	V-02	0.098	RESULTS OF TESTS ON A O.0175-SCALE MODEL (60-0) OF THE SPACE SHUTTLE ORBITER TO DETERMINE RE-ENTRY MODE CONVECTIVE HEAT TRANSFER RATES ON THE UPPER WING SURFACE AND SSME NOZZLES IN THE AEDC VKF 'B' HYPERSONIC WIND TUNNEL (0H98)
2341,	147,638	,	CS4/5	RESULTS OF TESTS CS4 AND CS5 TO INVESTIGATE DYNAMIC LDADS AND PRESSURES ON 0.03-SCALE MODELS (AX1319-3/4 AND 45-0) OF MATED 747 CAM AND SPACE SHUTTLE ORBITER IN THE BOEING TRANSONIC WIND TUNNEL

DMS-DR REPORT NUMBER	NASA CR NUMBER		NASA SERIES NUMBER	DATA REPORT
2342	151,074	,		OF PHASE FOREBODY IN THE A
2343.	160,849	-	LA85	PITOT PRESSURE SURVEYS ON THE LEEWARD SURFACE OF A 0.0045-SCALE MODEL ATP SHUTTLE ORBITER AT 30 DEGREES ANGLE OF ATTACK AND MACH 20 IN THE LARC 22 INCH HELIUM TUNNEL(LABS)
2344	151, 788	V-01	LA77	TRANSONIC STABILITY AND CONTROL CHARACTERISTICS OF A 0.015 SCALE (REMOTELY CONTROLLED ELEVON) MODEL 44-0 OF THE SPACE SHUTTLE ORBITER TESTED IN THE NASA/ARC 11-FOOT TRANSONIC WIND TUNNEL (LA77)
2344	15.1, 789	V-02	LA77	TRANSONIC STABILITY AND CONTROL CHARACTERISTICS OF A 0.015-SCALE (REMOTELY CONTROLLED ELEVON) MODEL 44-0 OF THE SPACE SHUTTLE ORBITER TESTED IN THE NASA/ARC 11-FOOT TRANSONIC WIND TUNNEL (L477)
2345	78195		SA21F	AERODYNAMIC ROLL CHARACTERISTICS OF A O.OO548 SCALE 146-INCH SOLID ROCKET BOOSTER REENTRY CONFIGURATION (MSFC MODEL NUMBER 486) OVER A PORTION OF THE REENTRY FLIGHT REGIME IN THE NASA/MSFC 14-INCH TRISONIC WIND TUNNEL
2346	151,385	V-01	IA 142	RESULTS OF SRB SEPARATION TESTS USING THE O.010-SCALE SSV MODEL 75-0TS IN THE AEDC VKF TUNNEL A
2346	151,386	V-02	IA142	RESULTS OF SRB SEPARATION TESTS USING THE 0.010-SCALE SSV MODEL 75-0TS IN THE AEDC VKF TUNNEL A
2346	151,387	V-03	18142	RESULTS OF SRB SEPARATION TESTS USING THE O.010-SCALE SSV MODEL 75-DTS IN THE AEDC VKF TUNNEL A
2347	160, 482	V-01	CA15A	MATED AERODYNAMIC CHARACTERISTICS INVESTIGATION FOR O.04-SCALE MODEL BOEING 747 CAM/ORBITER (MODEL AX1284 E-6) COMBINATION IN THE UNIVERSITY OF WASHINGTON AERONAUTICAL LABORATORY F. K. KIFSTEN WIND TUNNEL (CA15A)
2348	160, 483	* · ·	CA15B	MATED AERODYNAMIC CHARACTERISTICS INVESTIGATION FOR O 04-SCALE MODELBOEING 747 CAM/ORBITER (MODEL AX1284 E-7) COMBINATION IN THE UNIVERSITY OF WASHINGTON AERONAUTICAL LABORATORY F.K. KIRSTEN WIND TUNNEL (CA15B)
2349	151,379		CA17	RESULTS OF TEST CA17 CONDUCTED IN THE UWAL LOW SPEED WIND TUNNEL USING THE MATED 0.04-SCALE 747 MODEL AX1284 AND 0.0405 SPACE SHUTTLEORBITER MODEL 43-0
2350	151,065		0н46	RESULTS OF PHASE CHANGE PAINT THERMAL MAPPING TEST OH46 USING THE O.OOG-SCALE MODEL 90-0 IN THE NASA LARC VARIABLE DENSITY TUNNEL

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| SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE | RESULTS<br>99-0 IN<br>CHARACTE | A STUDY OF TRANSONIC BETA HYSTERESIS OF AN O.045 SCALE MODEL 44-0 (SPACE SHUTTE ORBITER TESTED IN THE NASA/LARC 8-FOOT TRANSONIC) PRESSURE TUNNEL SHUTTLE ORBITER TESTED IN THE NASA/LARC 8-FOOT TRANSONIC) | SUBSONIC STABILITY AND CONTROL CHARACTERISTICS OF A 0.030-SCALE SPACE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE ST | RESULTS OF SRB SEPARATION TESTS USING THE O.010 SCALE SSV MUDEL 75-DTS IN THE | RESULTS OF SRB SEPARATION TESTS USING THE O.D.O. SCALE SO. MODEL 75-0TS IN THE | RESULTS OF SRB SEPARATION TESTS USING THE O.OTO SCALE S.S. MODEL 75-01S IN THE | RESULTS OF SRB SEPARATION TESTS USING THE COLO SCALL  AEDC VKF TUNNEL A (1A143) | RESULTS OF JEST 0449A OF THE .0175-SCALE SPACE SHUTTLE DRBITCH MUDICIES CONDUCTED IN THE AEDC VKF TUNNEL B TO DETERMINE AERO HEATING CHARACTERISTICS CONDUCTED IN THE AERO. | AERODYNAMIC HEATING RESULTS OBTAINED DURING TEST OHGO CONDUCTED IN THE SECONDANCE BY THE SPACE SHUTTLE ORBITER VKF TUNNEL B USING THE O.040-SCALE MODEL 83-D OF THE SPACE SHUTTLE ORBITER FORWARD FIFTY PERCENT FUS-LAGE | RESULTS OF ASCENT AERODYNAMIC HEATING TESTS ON THE SPACE SHUTTLE ASSENTE ASSENTED THE VEHICLE, AT MACH 5.3 AND 7.4 IN THE NASA/AMES 3.5-FOOT HWT. USING THE O.0175-SCALE MODEL 60 OTS (IH68) | AERODYNAMIC HEATING RESULTS OBTAINED DURING TEST OH5OB CONDUCTED IN THE ALLOCATION OF THE SPACE SHUTTLE ORBITER FORWARD VKF TUNNEL B USING THE 0.040-SCALE 83-0 OF THE SPACE SHUTTLE ORBITER FORWARD FIFTY PERCENT FUSELAGE | RESULTS OF HEAT TRANSFER TESTING OF AN O.025-SCALE MODEL (500-0) OF TUNNEL SHUTTLE ORBITER CONFIGURATION 140B IN THE CALSPAN HYPER- SONIC SHOCK TUNNEL (0H66) |
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| NASA<br>SERIES<br>NUMBER                                 | 0A238                          | LA91                                                                                                                                                                                                        | LA89                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | IA143                                                                         | IA143                                                                          | IA143                                                                          | IA143                                                                           | 0H49A                                                                                                                                                                       | 0940                                                                                                                                                                                                                     | 1468                                                                                                                                                                                         | 0H508                                                                                                                                                                                                                       | 99НО                                                                                                                                                          |
|                                                          | !<br>! ~~<br>!                 |                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>V-04</b>                                                                   | V-02                                                                           | <b>N</b> -03                                                                   | V-04                                                                            | * **                                                                                                                                                                        |                                                                                                                                                                                                                          |                                                                                                                                                                                              |                                                                                                                                                                                                                             |                                                                                                                                                               |
| NASA<br>CR<br>NUMBER                                     | 160,853                        | 151, 383                                                                                                                                                                                                    | 160.827                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 151,401                                                                       | 151,402                                                                        | 151,403                                                                        | 151,404                                                                         | 151,066                                                                                                                                                                     | 151,064                                                                                                                                                                                                                  | 167,655                                                                                                                                                                                      | 151,067                                                                                                                                                                                                                     | 151,405                                                                                                                                                       |
| DMS - DR<br>REPORT                                       | 2351                           | 2352                                                                                                                                                                                                        | 2353                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2354                                                                          | W 2354                                                                         | 45EZ                                                                           | 2354                                                                            | 2355                                                                                                                                                                        | 2356                                                                                                                                                                                                                     | 2357                                                                                                                                                                                         | 2358                                                                                                                                                                                                                        | 2359                                                                                                                                                          |

|      | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE | BRATION TESTS OF THE SPA<br>EMS USING A 0.10-SCALE D<br>ARCH CENTER 9 X 7 AND 8<br>21B AND C ) | CALIBRATION TESTS OF THE SPACE SHUTTLE ORBITER PRIMARY AND ALTERNATE AIR DATA SYSTEMS USING A O.10-SCALE ORBITER FOREBODY MODEL (99-0) IN THE NASA AMES RESEARCH CENTER 9 X 7 AND 8 X 7-FOOT LEGS OF THE UNITARY PLAN WIND TUNNEL (0A2218 AND C.) | RESULTS OF A LANDING GEAR LOADS TEST USING A 0.0405-SCALE MODEL (15-0) DF THE SPACE SHUTTLE ORBITER IN THE ROCKWELL INTERNATIONAL NAAL WIND TUNNEL (0A153B) | RESULTS OF A LANDING GEAR LOADS TEST USING A 0.0405-SCALE MODEL (15-0) OF THE SPACE SHUTTLE ORBITER IN THE ROCKWELL INTERNATIONAL NAAL WIND TURNEL (DA1638) | ** DOCUMENTATION NOT COMPLETE ** | RESULTS OF FLUTTER FEST OS7 OBFAINED USING THE O.14-SCALE SPACE SHUFFLE ORBITER FIN/RUDDER MODEL NUMBER 55-D IN THE NASA LARC 16-FODF FRANSONEC DYNAMICS WIND TUNNEL | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERD CHARACTERISTICS UTILIZING AN .05-SCALE HI-FIDELITY RÉMOTE CONTROL MODEL (39-D) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(0A145B) | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE CRBITER VEHICLE 102 AERO CHARACTERISTICS UTILIZING AN .05-SCALE HI-FIDELITY REMOTE CONTROL MODEL (39-D) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(0A145B) | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERO CHARACTERISTICS UTILIZING AN .05-SCALE HI-FIDELITY REMOTE CONTROL MODEL (39-0) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(0a1458) | RESULTS OF FLUTTER TEST OSG OBTAINED USING THE O.14-SCALE WING/ELEVON MODEL (54-0) IN THE NASA LARC 16-FOOT TRANSONIC DYNAMICS WIND TUNNEL | HEAT TRANSFER PHASE CHANGE PAINT TESTS OF O.0175-SCALE MODEL (ND. 56-0) OF THE<br>ROCKWELL INTERNATIONAL SPACE SHUTTLE ORBITER IN THE AEDC JUNNEL B HYPERSGNIC<br>WIND TUNNEL |
|------|----------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| - 69 | NASA<br>SERIZS<br>NUMBER                                 | 0A221B/C                                                                                       | <b>0A</b> 221B/C                                                                                                                                                                                                                                  | OA 1638                                                                                                                                                     | OA 1638                                                                                                                                                     | LA92                             | 0.87                                                                                                                                                                 | 0A 145B                                                                                                                                                                                                       | 0A 145B                                                                                                                                                                                                       | OA 1458                                                                                                                                                                                                       | 980                                                                                                                                        | 0H25B                                                                                                                                                                         |
|      | 1                                                        | V-01                                                                                           | V-02                                                                                                                                                                                                                                              | V-01                                                                                                                                                        | V-02                                                                                                                                                        | <b>-</b>                         | ge geren de de de                                                                                                                                                    | V-01                                                                                                                                                                                                          | V-02                                                                                                                                                                                                          | V-03                                                                                                                                                                                                          |                                                                                                                                            |                                                                                                                                                                               |
|      | NASA<br>CR<br>NUMBER                                     | (CO, 521                                                                                       | 160, 522                                                                                                                                                                                                                                          | 151,370                                                                                                                                                     | 151,371.                                                                                                                                                    |                                  | 15.1,057                                                                                                                                                             | 160,527                                                                                                                                                                                                       | 160,528                                                                                                                                                                                                       | 160, 529                                                                                                                                                                                                      | 151,056                                                                                                                                    | 151,063                                                                                                                                                                       |
|      | DMS-DR<br>REPORT<br>NUMBER                               | 5360                                                                                           | 2360                                                                                                                                                                                                                                              | 2361                                                                                                                                                        | 736.1<br>B                                                                                                                                                  | 29EZ 4                           |                                                                                                                                                                      | 2364                                                                                                                                                                                                          | 2364                                                                                                                                                                                                          | 2364                                                                                                                                                                                                          | 2365                                                                                                                                       | 2366.                                                                                                                                                                         |

化铁铁矿 新国教教教制,各种政策重要的是一个主义的人,这一个人的人的专家,我看到自己的事,我看了我看到我们的一种人的意思,他们就是到了这个一个人的人,这个一个人的人,我们就是

|                            | RESULTS OF A HIGH ANGLE-OF-ATTACK AERO HEATING PRESSURE TEST ON A O 0175-SCALE MODEL (92-0) OF THE OV-102 CONFIGURATION SPACE SHUTTLE ORBITER IN THE AEDC VKF TUNNEL B (0H574/B). | RESULTS OF PHASE CHANGE HEAT TRANSFER TEST OHS! USING O.OOG-SCALE SPACE<br>SHUTTLE ORBITER MODELS 46-D AND 90-O AND PARTIAL WING O.0175-SCALE MODEL 64-D<br>IN THE LARC 31-INCH CFHT | AN AERODYNAMIC STATIC STABILITY WIND TUNNEL TEST OF A O.OOBS6 SCALE MODEL DF<br>THE SPACE SHUTTLE 146 INCH DIAMETER SOLID ROCKET BOOSTER REENTRY CONFIGURATION<br>(MSFC MODEL 487) IN THE NASA/MSFC HIGH REYNOLDS NUMBER WIND TUNNEL | RESULTS OF TEST USING A 0.030-SCALE PRESSURE LOADS SPACE SHUTTLE ORBITER MODEL (47-0) IN THE NASA/ARC UNITARY PLAN WIND TUNNEL | RESULTS OF TEST USING A O 030-SCALE PRESSURE LOADS SPACE SHUTTLE DRBITER MDDEL<br>(47-0) IN THE NASA/ARC UNITARY PLAN WIND TUNNEL | RESULTS OF TEST USING A 0.030-SCALE PRESSURE LOADS SPACE SMUTTLE DRBITER MODEL (47-0) IN THE NASA/ARC UNITARY PLAN WIND TUNNEL | RESULTS OF PASE HEATING TESTS ON A 0.04 SCALE SPACE SHUTTLE ORBITER BASE (MODEL 65-C.): IN THE NASA/USC THERMAL VACUUM CHAMBER A | RESULTS OF HEAT TRANSFER TESTS OF A 0.0175-SCALE SPACE SHUTTLE INTEGRATED VEHICLE MODEL 60-0TS IN THE AEDC-VKF TUNNEL A (1H72) | EFFECT OF TAILCONE CUT-OFF AND STING CONFIGURATION ON THE AERODYNAMIC CHARACTERISTICS OF A O.030 SCALE(REMOTELY CONTROLLED ELEVON. BGDYFLAP AND RUDDER) MODEL 201-0 ALT ORBITER TESTED IN THE NASA/LARC 8-FOOT TPT (LA99) | INVESTIGATIONS IN THE CALSPAN 8-FOOT TRANSONIC WIND TUNNEL TO DETERMINE STING-TARE EFFECTS ON A MODIFIED O.0165-SCALE SPACE SHUTLE ORBITER MODEL WITH A TAILCONE (LA82/LA103) | RESULTS OF AIR DATA SYSTEM CALIBRATION TEST USING THE O.10-SCALE SPACE SHUTTLE ORBITER VEHICLE 102 FOREBODY MODEL 99-0 IN THE NASA 40 X 80-FDDT SUBSONIC WIND TUNNEL (0A237) | RESULTS OF TEST USING A 0.030-SCALE PRESSURE LOADS SPACE SHUTTLE DRBITER MODEL<br>(47-0) IN THE NASA/ARC UNITARY PLAN WIND TUNNEL |
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| NASA<br>SERIES<br>NUMBER   | 0H57A/8                                                                                                                                                                           | 0H51                                                                                                                                                                                 | SA31F                                                                                                                                                                                                                                | 0A149B/C                                                                                                                       | 0A149B/C                                                                                                                          | 0A1499/C                                                                                                                       | 0H78                                                                                                                             | IH72                                                                                                                           | LA99                                                                                                                                                                                                                      | LA82/LA103                                                                                                                                                                    | 0A237                                                                                                                                                                        | 0A149A                                                                                                                            |
|                            | "<br> <br> -                                                                                                                                                                      |                                                                                                                                                                                      |                                                                                                                                                                                                                                      | V-01                                                                                                                           | <b>v</b> -02                                                                                                                      | V-03                                                                                                                           |                                                                                                                                  |                                                                                                                                |                                                                                                                                                                                                                           |                                                                                                                                                                               |                                                                                                                                                                              | V-01                                                                                                                              |
| NASA<br>CR:<br>NUMBER      | 151, 773                                                                                                                                                                          | 151,058                                                                                                                                                                              | 167,345                                                                                                                                                                                                                              | 151,790                                                                                                                        | 151,791                                                                                                                           | 151,792                                                                                                                        | 151,408                                                                                                                          | 160,843                                                                                                                        | 160,821                                                                                                                                                                                                                   | 167,372                                                                                                                                                                       | 160,530                                                                                                                                                                      | 151,779                                                                                                                           |
| DMS-DR<br>REPORT<br>NUMBER | 2367                                                                                                                                                                              | 2368                                                                                                                                                                                 | 2369                                                                                                                                                                                                                                 | 2370                                                                                                                           | # 2570                                                                                                                            | 9 <u>1</u> 62<br>.49                                                                                                           | 2374                                                                                                                             | 237.2                                                                                                                          | 237.3                                                                                                                                                                                                                     | 2374                                                                                                                                                                          | 2375                                                                                                                                                                         | 2376                                                                                                                              |

| SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE |         | RESULTS OF TEST USING A 0.030-SCALE PRESSURE LOADS SPACE SHUTTLE DRBITER MODEL (47-0) IN THE NASA/ARC UNITARY PLAN WIND TUNNEL | RESULTS OF TESTS OF THE O.010 SCALE SPACE SHUTTLE INTEGRATED VEHICLE IN THE MASA/AMES RESEARCH CENTER 11X11 FOOT TRANSONIC WIND TUNNEL, MODEL 72-DTS TEST IA144 ; | RESULTS OF TESTS OF THE O.010 SCALE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA/AMES RESEARCH CENTER 11X11 FOOT TRANSONIC WIND TUNNEL, MODEL 72-DTS TEST IA144 | RESULTS OF AN INVESTIGATION OF STATIC AND DYNAMIC PRESSURE DISTRIBUTIONS ON EXTERNAL TANK PROTUBERANCES IN THE 11-F00T LEG OF THE NASA/ARC UNITARY PLAN WIND TUNNEL (1A191) | ** DOCUMENTATION NOT COMPLETE ** | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERO CHARACTERISTICS UTILIZING AN .05-SCALE HI-FIDELITY REMOTE CONTROL MODEL (39-D) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(0A145A | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERD CHARACTERISTICS UTILIZING AN .OS-SCALE HI-FIDELITY REMOTE CONTROL MODEL (39-0) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(04145A | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERD CHARACTERISTICS UTILIZING AN | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERD CHARACTERISTICS UTILIZING AN .05-SCALE HI-FIDELITY REMOTE CONTROL MODEL (39-0.) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(04145A | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERD CHARACTERISTICS UTILIZING AN .05-SCALE HI-FIDELITY REMOTE CONTROL MODEL (39-0.) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(0A145A |
|----------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NASA<br>SERIES<br>NUMBER                                 | 0A149A  | 0A149A                                                                                                                         | IA144                                                                                                                                                             | IA144                                                                                                                                                           | IA191                                                                                                                                                                       | LA 106                           | OA 145A                                                                                                                                                                                                      | DA145A                                                                                                                                                                                                       | 0A 145A                                                                                             | OA145A<br>'                                                                                                                                                                                                   | 0A145A                                                                                                                                                                                                        |
|                                                          | v-32    | <b>v</b> -03                                                                                                                   | V-04                                                                                                                                                              | V-02                                                                                                                                                            |                                                                                                                                                                             |                                  | V-01                                                                                                                                                                                                         | V-02                                                                                                                                                                                                         | <b>V-03</b>                                                                                         | V-04                                                                                                                                                                                                          | V-05                                                                                                                                                                                                          |
| NASA<br>CR<br>NUMBER                                     | 151,780 | 151,781                                                                                                                        | 167,342                                                                                                                                                           | 167,343                                                                                                                                                         | 160,820                                                                                                                                                                     |                                  | 151,801                                                                                                                                                                                                      | 151,802                                                                                                                                                                                                      | 151,803                                                                                             | 151,804                                                                                                                                                                                                       | 151,805                                                                                                                                                                                                       |
| DMS-DR<br>REPORT<br>NUMBER                               | 2376    | 2376                                                                                                                           | 237.7                                                                                                                                                             | 2377                                                                                                                                                            | B-2                                                                                                                                                                         | 0                                | 2380                                                                                                                                                                                                         | 2380                                                                                                                                                                                                         | 2380                                                                                                | 2380                                                                                                                                                                                                          | 2380                                                                                                                                                                                                          |

| DMS-DR<br>REPORT<br>NUMBER | NASA<br>CR<br>NUMBER |              | NASA<br>SERIES<br>NUMBER | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA R                                                                                                                                                                 |
|----------------------------|----------------------|--------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2380                       | 151,806              | 90-A         | 0A145A                   | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERD CHARACTERISTICS UTILIZING AN .05-SCALE HI-FIDELITY REMOTE CONTROL MODEL (39-0) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL (041454 |
| 2381.                      |                      |              | LA107                    |                                                                                                                                                                                                               |
| 2382                       | 151, 382             |              | OH8/1A 109               | RESULTS OF EXPERIMENTAL TESTS IN THE NASA/MSFC IMPULSE BASE FLOW FACILITY ON A SPACE SHUTTLE .04 SCALE ORBITER (MODEL 25-0) TO DETERMINE SECOND STAGE ASCENT BASE HEATING RATES AND PRESSURE DISTRIBUTION     |
| 2383                       |                      |              | LA93                     | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                              |
| 2384                       | 151,412              | V-0:1        | IA 148                   | RESULTS OF RCS JET PLUME INTERACTION TESTS USING A O.G125-SGALE MODEL (70-DT)<br>OF THE SPACE SHUTTLE VEHICLE ORBITER IN THE AEDC VKF TUNNEL %8% (1A148)                                                      |
| 86-23 <b>8</b> 4           | 151,413              | V-02         | IA148                    | RESULTS OF RCS JET PLUME INTERACTION TESTS USING A O 0125-SCALE MODEL (70-01)<br>OF THE SPACE SHUTTLE VEHICLE ORBITER IN THE AEDC VKF TUNNEL %8% (1A148)                                                      |
| 2385                       | 151,366              |              | 0H15                     | RESULTS OF TESTS ON A O.111-SCALE SPACE SHUTTLE VEHICLE SIMULATED ELEVON/WING GAP HEAT TRANSFER MODEL (53-0) IN THE AMES RESEARCH CENTER 3.5-FDDT HWT                                                         |
| 2386                       | 151,368              |              | 0H44                     | RESULTS OF TESTS ON A O. 111-SCALE SPACE SHUTTLE VEHICLE SIMULATED ELEVON/ELEVON GAP HEAT TRANSFER MODEL (53-0) IN THE AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC WIND TUNNEL                                   |
| 2387                       | TASK CANCELLED       | ELLED        | LA104                    |                                                                                                                                                                                                               |
| 2388                       | 167,676              | <b>-</b>     | DH84A                    | RESULTS OF WIND TUNNEL TESTS OF THIN-SKIN THERMOCOUPLE MODELS 83-0 (0.04-SCALE) AND 60-0 (0.0175-SCALE) OF THE SPACE SHUTTLE ORBITER IN THE AEDC VKF HYPERSONIC WIND TUNNEL B (0H84A)                         |
| 2389                       | 160,810              | V-01         | OA 145C                  | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERO CHARACTERISTICS UTILIZING AN .OS-SCALE HI-FIDELITY REMOTE CONTROL MODEL (39-0) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(0A145C) |
| 2389                       | 160, 811             | V-02         | OA 145C                  | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERD CHARACTERISTICS UTILIZING AN .OS-SCALE HI-FIDELITY REMOTE CONTROL MDDEL (39-D) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(0A145C) |
| 2389                       | 160,812              | <b>r</b> -03 | OA 145C.                 | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER VEHICLE 102 AERD CHARACTERISTICS UTILIZING AN .05-SCALE HI-FIDELITY REMOTE CONTROL MODEL (39-0) IN THE AMES RESEARCH CENTER UNITARY WIND TUNNEL(0445C)  |

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CHRYSLER DATA MANAGEMENT SERVICES(DMS)
SPACE SHUTTLE WIND TUNNEL TEST PROGRAM
DATA REPORT DOCUMENTATION

| • | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE | LOW SUP<br>(REMOTE<br>NASA/LA | RESULTS OF TESTS OF THE O.10 SCALE SPACE SHUTTLE INTEGRATED VEHICLE IN THE LANGLEY RESEARCH CENTER 8-FOOT TRANSONIC PRESSURE TUNNEL, MODEL 72-075 FEST | GROUND PROXIMITY TESTS OF THE O.O3-SCALE MODEL (45-0) SPACE SHUTTLE DRBITER IN THE ROCKWELL INTERNATIONAL NAAL LOW SPEED WIND TINNER | RESULTS OF SSV INTERFERENCE HEATING TESTS ON A O.O4-SCALE THIN-SKIN THERMOCOUPLE MODEL (58-01) UTILIZING A SIMULATED EXTERNAL TANK & GREITER FOREBODY IN THE NASA/ARC 3 5-FOOT HYDEDSCALLS LINES. | RESULTS OF SSV INTERFERENCE HEATING TESTS ON A O.04-SCALE THIN-SKIN THERMOCOUPLE MODEL (58-OT) UTILIZING A SIMULATED EXTERNAL TANK & ORBITER FOREBODY IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TIMMNER (TAKA) | RESULTS OF SSV INTERFERENCE HEATING TESTS ON A 0.04-SCALE THIN-SKIN-THERMOCOUPLE MODEL (58-07) UTILIZING A SIMULATED EXTERNAL TANK & ORBITER FOREBODY IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND THANDER (1997) | RESULTS OF SSV INTERFERENCE HEATING TESTS ON A 0.04-SCALE THIN-SKIN THERMOCOUPLE MODEL (58-01) UTILIZING A SIMULATED EXTERNAL TANK & DRRITER FOREBODY IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TANKS. | ** DOCUMENTATION NOT COMPLETE ** | IC AERODYNAMIC CHARACTERISTICS OF A | EFFECT OF SILTS POD ON THE LOW SUPERSONIC AERODYNAMIC CHARACTERISTICS OF A O. 015-SCALE SHUTTLE ORBITER MODEL (44-0) TESTED IN THE NASA/LARC 4-FOOT UPWT | RESULTS OF WIND TUNNEL TESTS ON A 0.010 SCALE MODEL (72-0TS) ROCKWELL SPACE SHUTTLE VEHICLE IN THE LARC 8-FOOT TRANSONIC PRESSIDE TIMMEL (1844) | RESULTS OF TESTS USING A 0.03 SCALE MODEL (47-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC 16 FOOT TRANSONIC PROPULSION WIND TUNNEL (1A105A) |
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|   | NASA<br>SERIES<br>NUMBER                                 | LA101 .                       | IA244                                                                                                                                                  | 0A250                                                                                                                                | IH51A                                                                                                                                                                                             | 11514                                                                                                                                                                                                         | 1151A                                                                                                                                                                                                         | IH51A                                                                                                                                                                                                 | LA 109                           | LA111                               | LA110                                                                                                                                                    | LA113                                                                                                                                           | IA105A                                                                                                                                                   |
|   |                                                          |                               |                                                                                                                                                        |                                                                                                                                      | V-01                                                                                                                                                                                              | V-02                                                                                                                                                                                                          | V-03                                                                                                                                                                                                          | V04                                                                                                                                                                                                   |                                  |                                     |                                                                                                                                                          |                                                                                                                                                 | V-01                                                                                                                                                     |
|   | NASA<br>CR<br>NUMBER                                     | 160,481                       | 167,346                                                                                                                                                | 15.1, 389                                                                                                                            | 167,679                                                                                                                                                                                           | 167,680                                                                                                                                                                                                       | 167,681                                                                                                                                                                                                       | 167, 682                                                                                                                                                                                              |                                  | 151,394                             | 151, 393                                                                                                                                                 | 167,347                                                                                                                                         | 160,850                                                                                                                                                  |
|   | DMS-DR<br>REPORT<br>NUMBER                               | 2390                          | 2391                                                                                                                                                   | 2392                                                                                                                                 | 2393                                                                                                                                                                                              | £62333<br>B-52                                                                                                                                                                                                | 2363                                                                                                                                                                                                          | 2393                                                                                                                                                                                                  | 2394                             | 2395                                | 2396                                                                                                                                                     | 2397                                                                                                                                            | 2398                                                                                                                                                     |

| DMS-DR<br>REPORT<br>NUMBER | NASA<br>CR<br>NUMBER |      | NASA<br>Series<br>Number | SPACE SHUTTLE V                                                                                                                                                        |
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| 2398                       | 160,851              | V-02 | IA105A                   | RESULTS OF TESTS USING A O.O3 SCALE MODEL (47-OTS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC 16 FOOT TRANSONIC PROPULSION WIND TUNNEL (1A105A)               |
| 2398                       | 160,852              |      | IA 105A                  | RESULTS OF TESTS USING A 0.03 SCALE MODEL (47-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC 16 FOOT TRANSONIC PROPULSION WIND TUNNEL (1A105A)               |
| 2399                       | 151,328              |      | LA114                    | EFFECT OF SILTS POD ON THE HIGH SUPERSONIC AERODYNAMIC CHARACTERISTICS OF A 0.015-SCALE SHUTTLE ORBITER MODEL (44-0) TESTED IN THE NASA/LARC 4-FOOT UPWT (LEG 2)       |
| 2400                       | 160,518              |      | OA234                    | RESULTS OF SSV ORBITER AIR DATA SYSTEM CALIBRATION FEST USING THE O.10-SCALE ORBITER FOREBODY MODEL 99-0 IN THE NASA/LEWIS 10 X 10-FCDT SUPERSONIC WIND TUNNEL (0A234) |
| 2-53<br>104<br>104         | 151,395              |      | 1S1A/B/Ç/0S3             | AERONDISE TEST RESULTS USING A O.040-SCALE SPACE SHUTTLE VEHICLE CONFIGURATION 2A MODEL (11-01S) IN THE AMES RESEARCH CENTER UNITARY PLAN WIND TUNNELS                 |
| 2402                       | 151,763              |      | DA223                    | SYSTEM CHECKOUT OF THE O.O5-SCALE SPACE SHUTTLE VEHICLE ORBITER 102 MODEL (39-p) IN THE NAAL LOW SPEED WIND TUNNEL(0A223)                                              |
| 2403                       | 160,515              | V-01 | IA 156A                  | RESULTS OF TESTS USING A 0.02-SCALE MODEL (89-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC 16-FOOT TRANSONIC PROPULSION WIND TUNNEL (1A156A)               |
| 2403                       | 160,516              | V-02 | IA156A                   | RESULTS OF TESTS USING A O.02-SCALE MODEL (89-OTS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC 16-FOOT TRANSONIC PROPULSION WIND TUNNEL (IA156A)               |
| 2403                       | 160,517              | V-03 | IA156A                   | RESULTS OF TESTS USING A 0.02-SCALE MODEL (89-01S) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC 16-FOOT TRANSONIC PROPULSION WIND TUNNEL (1A156A)               |
| 2404                       | 160,510              | V-01 | ` IA119                  | RESULTS OF TESTS USING A 0.020-SCALE MODEL (88-0TS) OF THE SPACE SHUTTLE<br>INTEGRATED VEHICLE JET PLUME IN THE NASA/ARC UPWT 11 X 11-FOOT LEC (TEST<br>IA119)         |
| 2404                       | 160,511              | V-02 | 1A113                    | RESULTS OF TESTS USING A 0.020-SCALE MODEL (88-0TS) OF THE SPACE SHUTTLE<br>INTEGRATED VEHICLE JET PLUME IN THE NASA/ARC UPWT 11 X 11-FODT LEC (TEST<br>1A119)         |

| SMS-DR<br>REPORT<br>NUMBER | NASA<br>CR<br>NUMBER | !<br>+<br>1<br>1<br>1 | NASA<br>SERIES<br>NUMBER | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE                                                                                                                                                                       |
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| 2404                       | 160, 512             | <b>V</b> 03           | IA119                    | TS OF TESTS USING A O.O2O-SCALE MODEL (88-OTS) OF THE SPACE SHUTTLE RATED VEHICLE JET PLUME IN THE NASA/ARC UPWT 11 X 11-FOOT LEG (TEST)                                                                                       |
| 2404                       | 160,513              | <b>V</b> -04          | IA119                    | RESULTS OF TESTS USING A 0.020-SCALE MODEL (88-DTS) OF THE SPACE SHUTLE INTEGRATED VEHICLE JET PLUME IN THE NASA/ARC UPWT 11 X 11-FOOT LEC (TEST IA119)                                                                        |
| 2405                       | 151,756              | V-01                  | 0A 1Q 1                  | RESULTS OF A LOW SPEED APPROACH AND LANDING EXPERIMENTAL INVESTIGA- TION OF A O.OSO-SCALE SPACE SHUTTLE ORBITER MODEL (39-0) IN THE NASA/AMES RESEARCH CENTER'S 12-FOOT PRESSURE WIND TUNNEL (04101)                           |
| 2405<br>2405               | 151,757              | <b>7-02</b>           | 101 401                  | RESULTS OF A LOW SPEED APPROACH AND LANDING EXPERIMENTAL INVESTIGA- TION OF A O.050-SCALE SPACE SHUTTLE ORBITER MODEL (39-0) IN THE NASA/AMES RESEARCH CENTER'S 12-FOOT PRESSURE WIND TUNNEL (04101)                           |
| 54 <sub>5</sub>            | 151,758              | -03<br>-              | DA 101                   | RESULTS OF A LOW SPEED APPROACH AND LANDING EXPERIMENTAL INVESTIGA- TION OF A O.OSO-SCALE SPACE SHUTTLE ORBITER MODEL (39-0) IN THE NASA/AMES RESEARCH CENTER'S 12-FOOT PRESSURE WIND TUNNEL (0A101)                           |
| 2405.                      | 151,759              | <b>V</b> -04          | DA (O1                   | RESULTS OF A LOW SPEED APPROACH AND LANDING EXPERIMENTAL INVESTIGA- TION OF A O.OSO-SCALE SPACE SHUTTLE ORBITER MODEL (39-0) IN THE NASA/AMES RESEARCH CENTER'S 12-FOOT PRESSURE WIND TUNNEL (0A101)                           |
| 2405                       | 151, 760             | V-05                  | 10.1                     | RESULTS OF A LOW SPEED APPROACH AND LANDING EXPERIMENTAL INVESTIGA- TION OF A O O50-SCALE SPACE SHUTTLE ORBITER MODEL (39-0) IN THE NASA/AMES RESEARCH CENTER'S 12-FOOT PRESSURE WIND TUNNEL (01101)                           |
| 2405                       | 151,761              | 90- <b>,</b>          | 0A 1O 1                  | RESULTS OF A LOW SPEED APPROACH AND LANDING EXPERIMENTAL INVESTIGA- TION OF A 0.050-SCALE SPACE SHUTTLE ORBITER MODEL (39-0) IN THE NASA/AMES RESEARCH. CENTER'S 12-FOOT PRESSURE WIND TUNNEL (0A101)                          |
| 2406                       | 167,348              |                       | IA18†                    | RESULTS OF AN EXPERIMENTAL INVESTIGATION IN THE NASA/MSFC 14-INCH TRISGNIC WIND TUNNEL ON A .OO4-SCALE MODEL (74-OTS) SSLV TO DETERMINE INFLUENCE OF ORBITER AND SRB'S ON TEH EXTERNAL TANK NOSE PRESSURE DISTRIBUTION (14181) |
| 2407                       | 167,374              |                       | 1H73                     | RESULTS OF M=5.3 HEAT TRANSFER TESTS ON THE SECOND STAGE SPACE SHUTTLE CONFIGURATION AT RTLS ABORT MISSION PROFILE CONDITIONS USING THE O.OOG SCALE MODEL 50-0 & 41-T IN THE NASA/ARC 3.5-FOOT HWI (1H73)                      |

| DMS-DR<br>REPORT<br>NUMBER | NASA<br>CR<br>NUMBER | <br>          | NASA<br>SERIES<br>NUMBER | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE                                                                                                                                  |
|----------------------------|----------------------|---------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2408                       | 160,498              | V-01          | IA156B                   | S OF TESTS USING A O.02-SCALE MODEL (89-DIS) OF THE SPACE SHUTTLE<br>ATED VEHICLE IN THE NASA/AMES RESEARCH CENTER 9X7 FOOT SUPERSONIC WIN<br>(1A156B)                                    |
| 2408                       | 160, 499             | V-02          | 1A156B                   | RESULTS OF TESTS USING A O.02-SCALE MODEL (89-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA/AMES RESEARCH CENTER 9X7 FOOT SUPERSONIC WIND TUNNEL (1A156B)                      |
| 2408                       | 160,500              | <b>V-</b> 03  | IA1568                   | RESULTS OF TESTS USING A O.02-SCALE MODEL (89-OTS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA/AMES RESEARCH CENTER 9X7 FOOT SUPERSONIC WIND TUNNEL (1A156B)                      |
| 2409<br>E                  | 160,842              | ne. indicator | LA115                    | ADDITIONAL TRÂNSONIC STABILITY AND CONTROL CHARACTERISTICS OF A 0.015<br>SCALE(REMOTELY CONTROLLED ELEVON) MODEL 44-0 SPACE SHUTTLE ORBITER TESTED IN<br>THE NASA/LARC 8-FOOT TPI (LA115) |
| -25<br>54<br>6             | 151,777              |               | 0H56                     | RESULTS OF THE NASA/RI ORBITER WING TIP HEATING TEST WITH THE O.OB-SCALE ORBITER WING MODEL (91-0) IN THE AEDC VKF B HYPERSONIC WIND I UNNEL (0H56)                                       |
| 2414                       |                      |               | LA116                    | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                          |
| 2412                       | 167,386              | V-01          | 1H90                     | RESULTS OF HEAT TRANSFER TESTS ON THE SPACE SHUTTLE INTEGRATED VEHICLE, UNDER ASCENT CONDITIONS, USING THE O.0175-SCALE 60-DTS MODEL IN THE NASA/ARC 3.5-FOOT HWT (IH-90)                 |
| 2412                       | 167,387              | V-02          | 1Н90                     | RESULTS OF HEAT TRANSFER TESTS ON THE SPACE SHUTTLE INTEGRATED VEHICLE. UNDER ASCENT CONDITIONS, USING THE O.0175-SCALE 60-01S MODEL IN THE NASA/ARC 3.5-FOOT HWT (IH-90)                 |
| 2413                       | 160,858              | V-0:1         | IA 105B                  | RESULTS OF TESTS USING A 0.03 SCALE MODEL (47-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA/ARC 9X7 FOOT SUPERSONIC WIND TUNNEL (1A105B)                                       |
| 2413                       | 160,859              | V-02          | IA105B                   | RESULTS OF TESTS USING A O.03 SCALE MODEL (47-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA/ARC 9X7 FOOT SUPERSONIC WIND TUNNEL (1A105B)                                       |
| 2414                       | 160,484              | V-0.4         | 0.4232                   | CALIBRATION TESTS OF THE SPACE SHUTTLE AIR DATA SYSTEM USING A 0.10-SCALE ORBITER FOREBODY MODEL (99-0) IN THE AEDC 16T PROPULSION WIND TUNNEL (DA232)                                    |
| 2414                       | 160,485              | <b>V</b> -02  | OA232                    | CALIBRATION TESTS OF THE SPACE SHUTTLE AIR DATA SYSTEM USING A O. 10-SCALE DRBITER FOREBODY MODEL (99-0) IN THE AEDC 16T PROPULSION WIND TUNNEL (0A232)                                   |

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| DMS-DR<br>REPORT | NASA<br>CR<br>NUMBER |            | NASA<br>SERIES<br>NUMBER | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE                                                                                                                                                                                                          |
|------------------|----------------------|------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2415             | 151,784              | v-61       | 0A208/209                | RESULTS OF TESTS USING A O.02-SCALE MODEL (105-0) OF THE SPACE SHUTTLE VEHICLE ORBITER IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER VON KARMAN FACILITY SUPERSONIC TUNNEL B (DA208/209)                                                                           |
| 24 15            | 151,785              | V-02       | 0A208/209                | RESULTS OF TESTS USING A 0.02-SCALE MODEL (105-0) OF THE SPACE SHUTTLE VEHICLE ORBITER IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER VON KARMAN FACILITY SHIPERSONIC TUNNEL B. (0A208/209)                                                                         |
| 2416             | 160, 824             |            | 1A603                    | RESULTS OF TESTS IN THE NASA/MSFC 14-INCH TRISONIC WIND TUNNEL ON A' .004 SCALE MODEL (74-0TS) THRUST AUGMENTED SPACE SHUTTLE INTEGRATED VEHICLE (1A603)                                                                                                          |
| 2417             | 15.1,770             |            | 0H58                     | RESULTS OF AEROTHERMODYNAMIC HEAT TRANSFER TESTS ON A O.03-SCALE MODEL (93-0)<br>SIMULATING THE ELEVON/ELEVON GAP AND ELEVON/FUSELAGE INTERFACE REGIONS OF THE<br>SS ORBITER IN THE ARC 3.5HWT.                                                                   |
| 8 2418           | 151,414              |            | IH100                    | RESULTS OF TESTS OF A DEVELOPMENT FLIGHT INSTRUMENTATION GAS TEMPERATURE PROBE<br>IN THE AMES RESEARCH CENTER 3.5 FT. HYPERSONIC WIND TUNNEL (1H100)                                                                                                              |
| 24<br>9<br>9     | 151,762              |            | 0A270B/C                 | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER AERO-CHARACTERISTICS AND EXAMINE TRANSONIC BLOCKAGE AND SHOCK REFLECTION EFFECTS UTILIZING .02-SCALE HI-FIDELITY MODELS 104-0 AND 105-0 IN THE LANGLEYRESEARCH CENTER 16-FT. TRANSONIC WIND TUNNEL DA2708/C |
| 2420             | 167,385              |            | OH 103A                  | RESULTS OF TESTS ON A O.O4-SCALE SPACE SHUTTLE ORBITER FOREBODY MODEL.(83-0) IN THE AEDC VKF HYPERSONIC WIND TUNNEL.'B' TO OBTAIN AERODYNAMIC HFATING DISTRIBUTION ON LOWER FUSELAGE AND RCS NOZZLE AREAS (OH103A)                                                |
| 2421             | 160,495              | <b>V-0</b> | 0A2518/C                 | CALIBRATION TESTS OF THE SPACE SHUTTLE ORBITER AIR DATA SYSTEM USING A 0.10-SCALE ORBITER FOREBODY MODEL (99.0) IN THE NASA AMES RESEARCH CENTER 9 X 7 AND 8 X 7-FOOT LEGS OF THE UNITARY PLAN WIND TUNNEL (0A2518 AND C)                                         |
| 2421             | 160,496              | V-02       | 0A25-1B/C                | CALIBRATION TESTS OF THE SPACE SHUTTLE ORBITER AIR DATA SYSTEM USING A 0.10-SCALE ORBITER FOREBODY MODEL (99.0) IN THE NASA AMES RESEARCH CENTER 9 X 7 AND 8 X 7-FOOT LEGS OF THE UNITARY PLAN WIND TUNNEL (DA251B AND C)                                         |
| 2422             | 151,767              |            | FH15                     | RESULTS OF THIN SKIN THERMOCOUPLE TESTS CONDUCTED IN THE AEDC VKF TUNNEL A TO DETERMINE HEAT TRANSFER RATES ON A . 0275 SCALE SSV ET FOREBODY (FH15)                                                                                                              |
| 2423             | 151,768              |            | FH16                     | RESULTS OF THIN SKIN THERMOCOUPLE TESTS CONDUCTED IN THE NASA/ARC 3.5 FT.<br>Hypersonic wind tunnel to determine heat transfer rates on A .0275 SCALE SSV<br>ET FOREBODY(FH16)                                                                                    |

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| DMS-DR<br>REPORT<br>NUMBER | NASA<br>CR<br>NUMBER |             |             | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE                                                                                                                                                                                                               |
|----------------------------|----------------------|-------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2424                       | 160,506              | V-0.1       | DA126A,B.C  | RESULTS OF TESTS ON THE EFFECTS OF AEROELASTICITY OF THE SPACE SHUTTLE DRBITER VERTICAL TAIL USING A O.03-SCALE MODEL (47-0) IN THE NASA AMES UNITARY WIND TUNNELS (0A126A/B)                                                                                          |
| 2424                       | 160,507              | V-02        | OA126A, B.C | RESULTS OF TESTS ON THE EFFECTS OF AEROELASTICITY OF THE SPACE SHUTTLE ORBITER VERTICAL TAIL USING A 0.03-SCALE MODEL (47-0.) IN THE NASA AMES UNITARY WIND TUNNELS (0A126A/B)                                                                                         |
| 2424                       | 160,508              | V-03        | DA126A.B.C  | RESULTS OF TESTS ON THE EFFECTS OF AEROELASTICITY OF THE SPACE SHUTTLE ORBITER VERTICAL TAIL USING A 0.03-SCALE MODEL (47-0) IN THE NASA AMES UNITARY WIND TUNNELS (0A126ABC)                                                                                          |
| 2425                       |                      |             | LA117       | ** DGCUMENTATION NOT COMPLETE **                                                                                                                                                                                                                                       |
| 2426<br>E                  | TP1:186              |             | LA124       | A WIND TUNNEL STUDY OF THE APPLICABILITY OF FAR-FIELD SONIC-BOOM THEORY TO THE SPACE SHUTTLE ORBITER                                                                                                                                                                   |
| -57<br>-57                 | 167,675              |             | 0H103B      | RESULTS OF TESTS OF A O.0175-SCALE THIN-SKIN THERMOCOUPLE WIND TUNNEL MODEL (60-0) OF THE SPACE SHUTTLE ORBITER TO DETERMINE EFFECTS OF SURFACE ROUGHNESS IN THE AEDC VKF HYPERSONIC WIND TUNNEL B (0H103B)                                                            |
| 2428                       | 160,523              | V-01        | 1111        | WIND TUNNEL TESTS OF THE O.035-SCALE INTEGRATED SPACE SHUTTLE VEHICLE 84-DTS IN THE NASA/LEWIS 10 X 10-FOOT SUPERSONIC WIND TUNNEL (1H11)                                                                                                                              |
| 2428                       | 160,524              | V-02        | IHI         | WIND TUNNEL TESTS OF THE O.035-SCALE INTEGRATED SPACE SHUTTLE VEHICLE 84-DTS IN THE NASA/LEWIS 10 X 10-FOOT SUPERSONIC WIND TUNNEL (1H11)                                                                                                                              |
| 2428                       | 160,525              | £0-6        | IH11        | WIND TUNNEL TESTS OF THE O 035-SCALE INTEGRATED SPACE SHITTLE VEHICLE 84-DTS IN THE NASA/LEWIS 10 X 10-FOOT SUPERSONIC WIND TUNNEL (1111)                                                                                                                              |
| 2:128                      | 160, 526             | <b>V-04</b> | 1111        | WIND TUNNEL TESTS OF THE 0.035-SCALE INTEGRATED SPACE SHUTTLE VEHICLE 84-DTS IN THE NASA/LEWIS 10 X 10-FOOT SUPERSONIC WIND TUNNEL (1H11)                                                                                                                              |
| 2429                       | 167,353              |             | 1.1518      | THIN SKIN HEAT TRANSFER TESTS OF A SIMULATED SPACE SHUTTLE O.O4 SCALE SOLID ROCKET BODSTER/ET MODEL (58-TS) IN THE NASA/ARC 3.5 FOOT HYPERSONIC WIND TUNNEL (1H518)                                                                                                    |
| 2430                       | 160,817              | V-01        | 0A27CA      | RESULTS OF AN INVESTIGATION TO VERIFY SHUTTLE ORBITER AERO-CHARACTERISTICS AND EXAMINE TRANSONIC BLOCKAGE AND SHOCK REFLECTION EFFECTS UTILIZING AN .C5-SCALE HI-FIDELITY REMOTE CONTROL MODEL(39-0) IN THELANGLEY RESEARCH CENTER 16-FT. TRANSONIC WIND TUNNEL DA270A |

| 151, 799 V-07 IH85 TEST RESULTS FROM THE NASA/RUCKELL INTERNALIUNAL SPACE STOTICE TRIBLES. VEHICLE TEST USING A 0.0175-SCALE MODEL (60-0TS) CONDUCTED IN THE AEDC-VKF TUNNEL A (IH85) |
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|                                                                                                                                                                                       |

| SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE | INVESTIGATION OF LONGITUDINAL AND LATERAL-DIRECTIONAL AERODYNAMIC CHARACTERISTICS FOR A 2 PERCENT (MODEL 105-0) SPACE SHUTTLE ORBITER (VEHICLE 102) IN THE LARC UPWT AT MACH NUMBERS FROM 2.5 TO 4.5 (LA125) | RESULTS OF TESTS USING A O.O2O-SCALE WDDEL (105-0) OF THE SPACE SHUTTLE PUBLIC OPBITER IN THE NAVAL SURFACE WEAPONS CENTER HYPERVELDCITY TUNNEL 9 | RESULTS OF TESTS ON THE EFFECTS OF AEROELASTICITY OF THE SPACE SHUTTLE GRBITER VERTICAL TAIL USING A 0.03-SCALE MODEL (47-0) IN THE AEDC-16T PROPULSION WIND VERTICAL TAIL USING A 0.03-SCALE MODEL (47-0) IN THE AEDC-16T PROPULSION WIND TUNNEL (0A129) | BASE PRESSURE AND HEAT TRANSFER TESTS OF THE O.0225-SCALE SPACE SHULLE FLUMES SIMULATION MODEL (19-0TS) IN THE NASA-LEWIS RESEARCH CENTER 10X10-F0DT SUPERSONIC WIND TUNNEL (TEST 1H39) | SPACE SHUTTLE ORBITER TRIMMED CENTER OF GRAVITY EXTENSION STUDY VOL UME VISYSTEM DESIGN STUDIES | RESULTS OF TRANSONIC TESTS IN THE NASA/MSFC 14 INCH INISUNIC TION OF OOA SCALE MODEL (74-015) SPACE SHUTTLE LAUNCH VEHICLE (FA25) | RESULTS OF AN EXPERIMENTAL INVESTIGATION TO DETERMINE ORBITER AND SOLID ROCKET BOOSTER JET PLUME INDUCED EFFECTS UTILIZING A .01-SCALE INTEGRATED VEHICLE SPACE SHUTTLE MODEL (75-OTS) IN THE NASA/ARC 9X7 FOOT LEG OF THE UNITARY PLAN WARD TINNEL | RESULTS OF AN EXPERIMENTAL INVESTIGATION TO DETERMINE ORBITER AND SOLID ROCKET BOOSTER JET PLUME INDUCED EFFECTS UTILIZING A .01-SCALE INTEGRATED VEHICLE BOOSTER JET PLUME INDUCED EFFECTS UTILIZING A .01-SCALE INTEGRATED VEHICLE SPACE SHUTTLE MODEL (75-0TS) IN THE NASA/ARC 9X7 FOOT LEG OF THE UNITARY PLAN STAND TINNEL | RESULTS OF AN EXPERIMENTAL INVESTIGATION TO DETERMINE ORBITER AND SOLID ROCKE? RESULTS OF AN EXPERIMENTAL INVESTIGATION A .O1-SCALE INTEGRATED VEHICLE BOOSTER JET PLUME INDUCED EFFECTS UTILIZING A .O1-SCALE INTEGRATED VEHICLE SPACE SHUTTLE MODEL (75-OTS) IN THE NASA/ARC 9X7 FOOT LEG OF THE UNITARY PLAN WIND TUNNEL | RESULTS OF TESTS USING A O.O3-SCALE MODEL (47-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC 16-FOOT TRANSONIC PROPULSION WIND TUNNEL (18182) |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| NASA<br>SERÍES<br>NUMBER                                 | LA125                                                                                                                                                                                                        | 0A171                                                                                                                                             | 0A129                                                                                                                                                                                                                                                     | 1H39                                                                                                                                                                                    | LA126                                                                                           | FA25                                                                                                                              | IA138                                                                                                                                                                                                                                               | IA138                                                                                                                                                                                                                                                                                                                           | 1A138                                                                                                                                                                                                                                                                                                                       | 1A182                                                                                                                                                   |
|                                                          |                                                                                                                                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                           |                                                                                                                                                                                         | 90- <b>x</b>                                                                                    |                                                                                                                                   | <b>v</b> -01                                                                                                                                                                                                                                        | <b>V</b> -02                                                                                                                                                                                                                                                                                                                    | <b>V-03</b>                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                         |
| NASA<br>CR<br>NIMBER                                     | 160,845                                                                                                                                                                                                      | 15.1.764                                                                                                                                          | 151,782                                                                                                                                                                                                                                                   | 151,415                                                                                                                                                                                 | TM-X72661                                                                                       | 15:,766                                                                                                                           | 160,855                                                                                                                                                                                                                                             | 160,856                                                                                                                                                                                                                                                                                                                         | 160,857                                                                                                                                                                                                                                                                                                                     | 167,673                                                                                                                                                 |
| DMS-DR<br>REPORT                                         | 2432                                                                                                                                                                                                         | 2433                                                                                                                                              | 2434                                                                                                                                                                                                                                                      | 2435                                                                                                                                                                                    | 2739<br>7739<br>7739                                                                            | 2437                                                                                                                              | 2438                                                                                                                                                                                                                                                | 2438                                                                                                                                                                                                                                                                                                                            | 2438                                                                                                                                                                                                                                                                                                                        | 2439                                                                                                                                                    |

| DMS-DR<br>REPORT<br>NUMBER | NASA<br>CR<br>NUMBER | 1            | NASA<br>SERIES<br>NUMBER | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE                                                                                                                                                      |
|----------------------------|----------------------|--------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2440                       | 151,765              |              | IH83                     | BASE PRESSURE AND HEAT TRANSFER TESTS OF THE O. 0225-SC SIMULATION MODEL (19-0TS) IN YAWED FLIGHT CONDITIONS I 10X10-FODT SUPERSONIC WIND TUNNEL                                                              |
| 2441                       |                      |              | LA127                    | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                              |
| 2442                       |                      |              | LA128                    | ** DOCUMENTALISM NOT COMPLETE **                                                                                                                                                                              |
| 2443                       | 151, 769             |              | 0H79                     | PRESSURE AND HEAT TRANSFER TESTS OF THE O.O40-SCALE SPACE SHUTTLE ORBITER BASE HEATING MODEL (65-0) IN THE JSC THERMAL VACUUM CHAMBER A.                                                                      |
| 2444                       | 160.488              | V-01         | IA183                    | RESULTS OF TESTS USING A O.02-SCALE MODEL (89-01S) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC 16-FOOT TRANSONIC PROPULSION WINDTURNEL (1A183)                                                        |
| 2444                       | 160,489              | V-02         | IA183                    | RESULTS OF TESTS USING A O. 02-SCALE MODEL (89-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE AEDC 16-FOOT TRANSONIC PROPULSION WINDTHINEL (1A183)                                                       |
| 0 2445                     | 16.7, 652            | V-04         | OA 146                   | RESULTS OF A WIND TUNNEL PRESSURE LOADS TEST OF THE O.03-SCALE SPACE SHUTTLE ORBITER (MODEL 47-0) IN THE 8X7-FOOT LEG OF THE NASA/ARC UNITARY PLAN WIND TUNNEL (0A146)                                        |
| ว<br>ส.                    | 167,653              | <b>V</b> -02 | OA 146                   | RESULTS OF A WIND TUNNEL PRESSURE LOADS TEST OF THE O.03-SCALE SPACE SHUTTLE ORBITER (MODEL 47-0) IN THE 8X7-FOOT LEG OF THE NASA/ARC UNITARY PLAN WIND TUNNEL (0A146)                                        |
| 2446                       |                      |              | LA 122                   | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                              |
| 2447                       |                      |              | 0552                     | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                              |
| 2448                       | 160,519              | V-0:1        | IH5 1C                   | SPACE SHUTTLE THIN SKIN HEAT TRANSFER TESTS OF SIMULATED LARGE SCALEPROTUBERANCES AND HALF SCALE TILE ON FLAT PLATE MODEL 58-OTS IN THE NASA AMES RESEARCH CENTER 3.5-FT HYPERSONIC WIND TUNNEL (1H51C)       |
| 2448                       | 160, 520             | V-02         | IHS1C                    | SPACE SHUTTLE THIN SKIN HEAT TRANSFER TESTS OF SIMULATED LARCE<br>SCALEPROTUBERANCES AND HALF SCALE TILE ON FLAT PLATE MODEE 58-OFS IN THE NASA<br>AMES RESEARCH CENTER 3.5-FT HYPERSONIC WIND TUNNEL (THSTC) |
| 2449                       | 160,497              |              | IA132                    | RESULTS OF SHUTTLE TRANSPORTATION SYSIEM ASCENT AIR DATA SYSTEM CALIBRATION TEST USING THE O.O7-SCALE EXTERNAL TANK FOREBODY MODEL (68-T) IN THE AEDC PWT                                                     |

| DMS-DR<br>REPORT<br>NUMBER | NASA<br>CR<br>NUMBER |                                        | NASA<br>SERIES<br>NJMBER | SPACE SHUFTLE VEHICLE WIND TUNNEL TEST DATA REPORT TITLE                                                                                                                                                                                         |
|----------------------------|----------------------|----------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2450                       | 151,774              |                                        | /0548/051                | I<br>IMENFAL RESULTS OF TESTS TO DE<br>CTION SUBSYSTEM (TFS) TILES ON                                                                                                                                                                            |
| 245.1                      | 151,772              | 600 M                                  | OH9OA/MA29               | RESULTS OF BOUNDARY LAYER TRANSITION TESTS OF THE C.025-SCALE RIGHT-HAND WING<br>AND TRUNCATED AFT FUSELAGE MODEL (94-0) IN THE AEDC HWIB.                                                                                                       |
| 2452                       | 167,383              | · ************************************ | 66H                      | RESULTS OF HEAT TRANSFER TESTS ON THE SPACE SHUTTLE FORMARD SRB SECTION AT ASCENT CONDITIONS USING THE 0.10-SCALE MODEL 98-5 IN THE NASA/AMES 3.5-FODT HWT (IH99)                                                                                |
| 2453                       | 151,776              |                                        | IH75                     | BASE PRESSURE AND HEAT TRANSFER TESTS OF THE O.0225-SCALE SPACE SHUTTLE PLUME<br>SIMULATION MODEL (19-0TS) IN THE NASA/CALSPAN LUDWIEG TUBEWIND TUNNEL                                                                                           |
| 2454                       | TM-X72661            | N-03                                   | : A57                    | IMPACT OF RETROFITS FOR CENTER-OF-GRAVITY EXTENSION ON ORBITER THERMAL PROTECTION SYSTEM                                                                                                                                                         |
| -61<br>-61                 | 15.1, 778            |                                        | 0H102A                   | RESULTS OF FLOW ANGULARITY TESTS ON A O.0175-SCALE SPACE SHUTTLE DRBITER MODEL (56-0) ON THE AEDC VKF B HYPERSONIC WIND TURNEL (0H102A )                                                                                                         |
| 2456                       | 160.486              | V-01                                   | IA184                    | RESULTS OF TESTS USING A 0.03-SCALE MODEL (47-0TS) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA/AMES RESEARCH CENTER 9X7 FOOT SUPERSONIC WIND TUNNEL (1A184)                                                                              |
| 2456                       | 160,487              | <b>V-02</b>                            | IA184                    | RESULTS OF TESTS USING A 0.03-SCALE MODEL (47-01S) OF THE SPACE SHUTTLE INTEGRATED VEHICLE IN THE NASA/AMES RESEARCH CENTER 9X7 FOOT SUPERSONIC WIND TUNNEL (1A184)                                                                              |
| 245.7                      | 160,813              |                                        | 14180                    | RESULTS OF SHUTTLE TRANSPORTATION SYSTEM ASCENT AIR DATA SYSTEM HIGH SUPERSONIC CALIBRATION TEST USING THE O.OT-SCALE EXTERNAL DXYGEN HYDRDGEN TANK FOREBODY MODEL (68-T) IN THE UNITARY PLAN HIGH SPEED LEG OF THE LARC 4X4 WIND TUNNEL (1A180) |
| 2458                       | 167,668              |                                        | 0536/37                  | SPACE SHUTTLE HRSI FILE TESTS OS36 AND OS37 IN THE NASA/AMES RESEARCH CENTER<br>11X11-FOOT AND 9X7-FOOT WIND TUNNELS USING TEST FIXTURES 96-G AND 91-D<br>(0S36/37)                                                                              |
| 2459                       | 167,685              | V-01                                   | DA310A/DA310B/DA31       | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                                                                 |
| 2459                       | 167,686              | V-02                                   | 0A310A/0A310B/0A31       | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                                                                 |
| 2460                       | ,                    | •                                      | FA27                     | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                                                                 |

| DMS-DR<br>REPORT<br>NUMBER | NASA<br>CR<br>NUMBER |             | E S            | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REPORT IITLE                                                                                                                                                                       |
|----------------------------|----------------------|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2461                       | 167.677              | 1           | THSID          | SHUTTLE TESTS OF TURBULENT BOUNDARY LAYER HEATING EFFECTS<br>IMULATION USING MODEL 58-0 IN THE NASA/ARC 3.5-FOOT HYPER<br>(IH510)                                                                                              |
| 2462                       | 167,370              | <b>v</b> -0 | IA131B/C       | RESULTS OF SUPERSONIC ASCENT AIR DATA SYSTEM CALIBRATION TESTS 1A1318/C USING THE O.O7-SCALE EXTERNAL TANK FOREBODY MODEL 68-T IN THE ARC 9X7 AND 8X7 LEGS OF THE AMES UNITARY PLAN WIND TUNNEL                                |
| 2.462                      | 67,371               | V-02        | IA131B/C       | RESULTS OF SUPERSONIC ASCENT AIR DATA SYSTEM CALIBRATION TESTS 1A134B/C USING THE O.O7-SCALE EXTERNAL TANK FOREBODY MODEL 68-T IN THE ARC 9X7 AND 8X7 LEGS OF THE AMES UNITARY PLAN WIND TUNNEL                                |
| 2463                       | 167,672              |             | 0541/0542/0545 | SPACE SHUTTLE LRSI TPS TILE TESTS 0541.0542 AND 0545 IN THE NASA/AMES RESEARCH CENTER 11X11-F00T WIND TUNNEL USING MODEL 107-0 (0541.0542 AND 0545)                                                                            |
| B-62                       | 160.828              | V-01        | 0H84B          | RESULTS OF HEAT TRANSFER TEST IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER-VOW KARMAN FACILITY TUNNELS A AND B UTILIZING SPACE SHUTTLE ORBITER THIN SKIN THERMOCOUPLE MODELS 56-0. 60-0. AND 83-0 TESTS: OH84B. OH 105. IH-102 |
| 2464                       | 160.829              | V-02        | 0H84B          | RESULTS OF HEAT TRANSFER TEST IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER-VON KARMAN FACILITY TUNNELS A AND B UTILIZING SPACE SHUTTLE ORBITER THIN SKIN THERMOCOUPLE MODELS 56-0. 60-0. AND 83-0 TESTS: OH84B, DH 105, IH-102 |
| 2464                       | 160,830              | V-03        | 0H84B          | RESULTS OF HEAT TRANSFER TEST IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER-VOW KARMAN FACILITY TUNNELS A AND B UTILIZING SPACE SHUTTLE ORBITER THIN SKIN THERMOCOUPLE MODELS 56-0, 60-0, AND 83-0 TESTS: OH849, OH 105, IH-102 |
| . 2464                     | 160.831              | V-04        | 0H84B          | RESULTS OF HEAT TRANSFER TEST IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER-VON KARMAN FACILITY TUNNELS A AND B UTILIZING SPACE SHUTTLE ORBITER THIN SKIN THERMOCOUPLE MODELS 56-0, 60-0, AND 83-0 TESTS: OH84B, OH 105, IH-102 |
| 2464                       | 160,832              | <b>V-05</b> | 0H105          | RESULTS OF HEAT TRANSFER TEST IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER-YON KARMAN FACILITY TUNNELS A AND B UTILIZING SPACE SHITTLE GRBITER THIN SKIN THERMOCOUPLE MODELS 56-0, 60-0, AND 83-0 TESTS: CH848. DH 165, IH-102 |
| 2464                       | 160,833              | N-06        | 1H102          | RESULTS OF HEAT TRANSFER TEST IN THE ARNOLD ENGINEERING DEVELOPMENT CENTER-VON KARMAN FACILITY TUNNELS A AND B UTILIZING SPACE SHUTTLE ORBITER THIN SKIN THERMOCOUPLE MODELS 56-0, 60-0, AND 83-0 TESTS: OH84B, OH 105, IH-102 |
| 2465.                      | 167.674              |             | 0555/57        | AERODYNAMIC VENTING CHARACTERISTICS TESTS OF FULL-SCALE SPACE SHUTTLE MODEL 81-0 HRSI TPS TILES UNDER A SIMULATED LAUNCH ENVIRONMENT IN THE NAS /ARC 9X7-FOOT WIND TUNNEL (0S55/57)                                            |

## CHRYSLER DATA MANAGEMENT SERVICES(DMS) SPACE SHUTTLE WIND TUNNEL TEST PROGRAM DATA REPORT DOCUMENTATION

| DMS-DR<br>REPORT<br>NUMBER | NASA<br>CR<br>NUMBER | !        | NASA<br>SERIES<br>NUMBER | SPACE SHUTTLE VEHICLE WIND TUNNEL TEST DATA REFORT TITLE                                                                                                                                             |
|----------------------------|----------------------|----------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2466                       | 167.663              | V-01     | 1<br>0A257               | STIGATIONS OF THE O.010-SCALE OV-102 CONFIGURATION SPACE ORBITER MODEL 72-0 IN THE NASA/LANGLEY RESEARCH CENTER 2 0A257)                                                                             |
| 2466                       | 167, 664             | V-02     | <b>DA257</b>             | RESULTS C: INVESTIGATIONS OF THE O.010-SCALE OV-102 CONFIGURATION SPACE SHUTTLE VEHICLE ORBITER MODEL 72-0 IN THE NASA/LANGLEY RESEARCH CENTER 20-INCH MACH 6 TUNNEL (0A257)                         |
| 2467                       | 160,834              | ÷        | тнюз                     | RESULTS OF AEROTHERMODYNAMIC HEAT TRANSFER TESTS ON 0.0175-SCALE MODELS 60-OT<br>AND 56-0/607 CONDUCTED IN THE NASA/AMES RESEARCH CENTER 3.5-FOOT HYPERSONIC<br>WIND TUNNEL (IH)03)                  |
| 2468                       | 167,352              |          | ОН 105В/ОН84С            | RESULTS OF A HEAT TRANSFER TEST SERIES IN THE NASA/ARC 3.5 FOOT HYPERSONIC WIND TUNNEL UTILIZING SPACE SHUTTLE ORBITER THIN-SKIN THERMOCOUPLE MODELS 60-D AND 83-0(TESTS OH84C AND OH105B)           |
| <b>69</b> -2469            | 167,367              |          | DS302A                   | SPACE SHUTTLE AFRSI LARGE-SCALE DEVELOPMENT TEST USING MODEL 117-D SPECIMENS AND MODEL 96-0 TEST FIXTURE IN THE AMES RESEARCH CENTER 11X11-FOOT TRANSONIC WIND TUNNEL (0S302A)                       |
| 2470                       | 167,658              |          | 0S31A                    | SPACE SHUTTLE LRSI THIN TILE TEST IN THE NASA/AMES RESEARCH CENTER 11X11-FDDI<br>UNITARY PLAN WIND TUNNEL USING TEST FIXTURE 96-0 (0531A)                                                            |
| 2471                       | 160,514              |          | LA 132                   | RESULTS OF TESTS ON A .O2 SCALE SPACE SHUTTLE LAUNCH VEHICLE MODEL (890TS) IN THE LARC 16-FT TRANSONIC WIND TUNNEL TD DETERMINE PRESSURE DISTRIBUTION ALONG THE EXTERNAL TANK LOX CABLE TRAY (LA132) |
| 247.2                      | 160, 494             |          | 0H400                    | RESULTS OF AN ORBITER SILTS POD HEAT TRANSFER AND FLOW FIELD TEST USING A O.0175-SCALE SPACE SHUTTLE ORBITER(92-0) IN THE AEDC VKF HYPERSONIC WIND TUNNEL B (0H400)                                  |
| 2473                       | 167,388              | <b>,</b> | 0A252                    | AERODYNAMIC LOADS TEST OF O.66-SCALE SPACE SHUTTLE ORBITER TILE ARRAY MODEL<br>(106-0) IN THE NASA/ARC 2-FOOT TRANSONIC WIND TUNNEL (0A252)                                                          |
| 2473                       | 167,389              | V-02     | 0A252                    | AERODYNAMIC LOADS TEST OF O.66-SCALE SPACE SHUTTLE ORBITER TILE ARRAY MODEL (106-0) IN THE NASA/ARC 2-FOOT TRANSONIC WIND TUNNEL (0A252)                                                             |
| 2474                       | 160.826              |          | FA28                     | RESULTS OF TESTS ON A .004 SCALE SPACE SHUTTLE LAUNCH CONFIGURATION (M7DEL 74-OTS) IN THE NASA/MSFC 14-INCH TRISONIC WIND TUNNEL (FA28)                                                              |
| 2475                       | 160,509              |          | LA140                    | PRESSURE DISTRIBUTION AND INTEGRATED LOADS AT FOUR STATIONS ON THE SPACE SHUTTLE TANK LOX FEEDLINE (LA140)                                                                                           |
| •                          |                      |          |                          |                                                                                                                                                                                                      |

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| 2476<br>2477               | 160,825                                 |              | LA141A/B                 | RESULTS DE INVESTIGATIONS ON AN O.004-SCALE 140C MODIFIED CONFIGURATION SPACE<br>SHUTTLE VEHICLE ORBITER MODEL (74-0) IN THE NASA/LANGLEY RESEARCH CENTER<br>20-INCH MACH 6 TUNNEL (LA141)                             |
| 2478                       | 160, 503                                | V-01         | LA131                    | HIGH SUPERSONIC RUDDER EFFECTIVENESS AND EFFECT OF SILIS POD ON A O.20-SCALE (REMOTELY DRIVEN CONTROL SURFACE) MODEL 106-0 SPACE SHUTTLE ORBITER TESTED IN THE NASA/LARC 4-FOOT UNITARY PLAN WIND TUNNEL (LA131)       |
| 2478                       | 160,504                                 | V-02         | LA131                    | HIGH SUPERSONIC RUDDER EFFECTIVENESS AND EFFECT OF SILTS POD ON A O.20-SCALE (REMOTELY DRIVEN CONFROL SURFACE) MODEL 106-0 SPACE SHUTFLE ORBITER TESTED IN THE NASA/LARC 4-FOOT UNITARY PLAN WIND TUNNEL (LA131)       |
| B-64                       | 160, 505                                | V-03         | LA131                    | HIGH SUPERSONIC RUDDER EFFECTIVENESS AND EFFECT OF SILTS POD ON A O.20-SCALE<br>(REMOTELY DRIVEN CONTROL SURFACE) MODEL 106-0 SPACE SHUFTLE ORBITER TESTED IN<br>THE NASA/LARC 4-FOOT UNITARY PLAN WIND TUNNEL (LA131) |
|                            |                                         |              | IAGOO                    | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                                       |
| 2479                       | 167,657                                 |              | 1H104                    | RESULTS OF HEAT TRANSFER TESTS ON THE SFACE SHUTTLE SECOND STAGE ASCENT VEHICLE AT FREESTREAM MACH=5.3 AND 7.3 IN THE NASA/ARC 3.5-FOOT HWT USING THE 0.0175-SCALE MODEL 60-OT(1H104)                                  |
| 2481                       | 167,377                                 |              | 1A602                    | RESULTS OF TESTS IN THE NASA/MSFC 14-INCH TRISONIC WIND TUNNEL ON A 0.004-SCALE MODEL (74-OTS) THRUST AUGMENTED SPACE SHUTTLE INTEGRATEDVEHICLE (1A602)                                                                |
| 2482                       | 160,814                                 | V-0:1        | 08460                    | RESULTS OF TESTS FOR FORCE, MOMENT, PRESSURE AND AEROELASTIC DATA USING THE 0.030 SCALE PRESSURE LOADS SPACE SHUTTLE ORBITER MODEL (47-0.) IN THE NASA/ARC 11 FOOT UNITARY PLAN WIND TUNNEL, (0A400)                   |
| 2482                       | 160,815                                 | V-02         | 0A400                    | RESULTS OF TESTS FOR FORCE, MOMENT, PRESSURE AND AEROELASTIC DATA USING THE O.030 SCALE PRESSURE LOADS SPACE SHUTTLE ORBITER MODEL (47-0( IN THE NASA/ARC 11 FOOT UNITARY PLAN WIND TUNNEL. (0A400)                    |
| 2482                       | 160,816                                 | <b>^-</b> 03 | 09400                    | RESULTS OF TESTS FOR FORCE, MOMENT, PRESSURE AND AEROELASTIC DATA USING THE 0.030 SCALE PRESSURE LOADS SPACE SHUTTLE ORBITER MODEL (47-04 IN THE NASA/ARC 11 FOOT UNITARY PLAN WIND TUNNEL. (0A400)                    |
| 2483                       | 167,357                                 | <b>N-04</b>  | 0549                     | RESULTS OF A TEST OF THE FULL-SCALE NASA ORBITER VERTICAL TAIL (MODEL 111-0) IN THE AEDC 16 FOOT PROPULSION WIND TUNNEL (0S49)                                                                                         |

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|----------------------------|----------------------|-------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2483                       | 167,358              | V-02  | 0549                     | ALE NASA ORBITER VERTICAL TAIL (MODEL 11<br>2[8 1[[]6 .3\49.                                                                                                                                                                        |
| 2.484                      | <del></del>          |       | LA 144                   | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                                                    |
| 2485                       | 167,361              |       | 0\$50/0\$50A             | RESULTS OF VENT PORT TPS LOADS TESTS IN THE AMES RESEARCH CENTER (ARC) 11X11-FD0T WIND TUNNEL USING MODEL 113-0 (0S50/0S50A)                                                                                                        |
| 2486                       | 167,368              | V-01  | 0A253                    | RESULTS OF WIND TUNNEL TEST DA253 IN THE AEDC 16-T PROPULSION WIND TUNNEL USING A 0.035-SCALE SS LAUNCH VEHICLE MODEL 84-0TS & ENTRY VEHICLE MODEL 84-D                                                                             |
| 2486                       | 167,369              | V-02  | 0A253                    | RESULTS OF WIND TUNNEL TEST GA253 IN THE AEDC 16-T PROPULSION WIND TUNNEL USING A 0.035-SCALE SS LAUNCH VEHICLE MODEL 84-0TS & ENTRY VEHICLE MODEL 84-D                                                                             |
| B=65                       | 167,362              |       | 0543/0551/05518/05       | RESULTS OF AMES GAP FILLER TESTS USING TEST FIXTURE 96-0 IN THE NASA/AMES 11X11-FOOT TUNNEL (0S43.0S51.0S518.0S51C)                                                                                                                 |
| 2468                       | 160,835              |       | 08300                    | PRELIMINARY SCREENING TESTS OF THE SPACE SHUTTLE AFRSI MATERIAL USING MODEL 115-0 IN THE NASA/AMES RESEARCH CENTER 2X2 FOOT TRANSONIC WIND TUNNEL (DS300)                                                                           |
| 2489                       | 167,366              |       | 0556                     | RESULTS OF A WIND TUNNEL TEST ON THE SPACE SHUTTLE UMBILICAL PURGE CURTAIN IN THE AEDC 16-T PROPULSION WIND TUNNEL (PWT), USING MODEL 108-0 (0556)                                                                                  |
| 2490ÿ                      | 167,349              | V-0-7 | 0H109                    | TEST RESULTS FROM THE NASA/ROCKWELL INTERNATIONAL SPACE SHUTTLE O.0175-SCALE ORBITER MODELS 56-D/60-0 AND O.04-SCALE ORBITER FOREBODY MODEL 83-D. CONDUCTED IN THE AEDC/VKF-B 50-INCH HYPERSONIC WIND TUNNEL (TESTS 0H109 & 0H109B) |
| 2490                       | 167,250              | v-02  | 0H109                    | TEST RESULTS FROM THE NASA/ROCKWELL INTERNATIONAL SPACE SHUFTLE O.0175-SCALE ORBITER MODELS 56-0/60-0 AND O.04-SCALE ORBITER FOREBODY MODEL 83-0 CONDUCTED IN THE AEDC/VKF-B 50-INCH HYPERSONIC WIND TUNNEL (TESTS 0H109 & 0H109B)  |
| 2490                       | 167, 351             | v-03  | 0H109                    | TEST RESULTS FROM THE NASA/ROCKWELL INTERNATIONAL SPACE SHUTTLE O.0175-SCALE ORBITER MODELS 56-0/60-0 AND O.04-SCALE ORBITER FOREBODY MODEL 83-0 CONDUCTED IN THE AEDC/VKF-B 50 INCH HYPERSONIC WIND TUNNEL (TESTS 0H109 & 0H109B). |
| 2491                       | 167, 659             | V-0:  | OA258                    | RESULTS OF INVESTIGATIONS ON THE O.020-SCALE OV-102 CONFIGURATION SPACE SHUTTLE VEHICLE ORBITER MODEL 106-0 IN THE USAF/AEDC VKF TUNNEL B (BA258)                                                                                   |
| 2491                       | 167, 660             | v-02  | 0A258                    | RESULTS OF INVESTIGATIONS ON THE O.020-SCALE OV-102 CONFIGURATION SPACE SHUTILE VEHICLE ORBITER MODEL 106-0 IN THE USAF/AEDC VKF TUNNEL B (0A258)                                                                                   |

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|----------------------------|----------------------|--------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2491                       | 167,661              | V-03         | 0A258 (     | (8                                                                                                                                                                                                                          |
| 2491                       | 167,662              | V-04         | 0A258       | RESULTS OF INVESTIGATIONS ON THE O.020-SCALE OV-102 CONFIGURATION SPACE SHUTTLE VEHICLE ORBITER MODEL 106-0 IN THE USAF/AEDC VKF TUNNEL B (0A258)                                                                           |
| 2492                       | i67,359              |              | 0H10.7      | RESULTS OF THE SSV ELEVON GAP HEATING TESTS USING THE O.025-SCALE SPACE SHUTTLE ORBITER MODEL (94-0) IN THE AEDC/VKF HYPERSONIC WIND TUNNEL B (OH107)                                                                       |
| 2493                       | 167,665              | V-01         | 0A259       | RESULTS OF INVESTIGATIONS OF THE O.010-SCALE OV-102 CONFIGURATION SPACE SHUTTLE VEHICLE ORBITER MODEL 72-0 IN THE NASA/AEDC VKF TUNNEL & (0A259)                                                                            |
| 2493                       | 167,666              | V-02         | 0A259       | RESULTS OF INVESTIGATIONS OF THE O.010-SCALE OV-102 CONFIGURATION SPACE SHUTTLE VEHICLE ORBITER MODEL 72-0 IN THE NASA/AEDC VKF TUNNEL B                                                                                    |
| B-6                        | 167,360              |              | 0H108       | AERODYNAMIC HEATING TESTS OF A O.10-SCALE SS ORBITER ELEVON/ELEVON GAP MODEL<br>93-0 IN THE NASA/ARC 3.5 FOOT HYPERSONIC WIND TUNNEL (OH108)                                                                                |
| 99<br>2495                 | 160,844              |              | OH110       | TEST RESULTS FROM THE NASA/ROCKWELL INTERNATIONAL SPACE SHUTTLE O.0175-SCALE ORBITER MODELS 56-0/60-0 AND THE O.04-SCALE ORBITER FOREBODY MODEL 83-0 CONDUCTED IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TUNNEL (TEST OH110) |
| 2496                       | 167,380              | <b>V</b> -01 | OH111       | RESULTS OF THE TRANSATLANTIC ABORT MANEUVER TEST(OH111) USING THE O.0175-SCALE 56-D AND 60-D, AND THE O.04-SCALE 83-D THIN SKIN THERMOCOUPLE MODELS IN THE AEDC VKF TUNNEL B HYPERSONIC WIND TUNNEL(OH111)                  |
| 2496                       | 167,381              | V-02         | ÷           | RESULTS OF THE TRANSATLANTIC ABORT MANEUVER TEST(OH111) USING THE O.O175-SCALE 56-D AND 60-0. AND THE O.O4-SCALE 83 O THIN SKIN THERMOCOUPLE MODELS IN THE AEDC VKF TUNNEL B HYPERSONIC WIND TUNNEL(OH111)                  |
| 2496                       | 167,382              | K-03         | OH311       | RESULTS OF THE TRANSATLANTIC ABORT MANEUVER TEST(DH111) USING THE O.O175-SCALE<br>56-D AND 60-D, AND THE O.O4-SCALE 83-O THIN SKIN THERMOCOUPLE MODELS IN THE<br>AEDC YKF TUNNEL B HYPERSONIC WIND TUNNEL(OH111)            |
| 2497                       |                      |              | MA34        | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                                                                            |
| 2498                       | 167,656              |              | 0A255/0A256 | RESULTS OF SPACE SHUTTLE ORBITER (MODEL 70-0) LATE ENTRY RCS YAW JET EFFECTS<br>TESTS IN THE NASA/LARC UPWT AND 16-FT. WIND TUNNELS (DA255/DA256)                                                                           |
| 2499                       | 160,836              |              | 0A164       | RESULTS OF TESTS USING A 0.36-SCALE MODEL (76-0) OF THE SSV ORBITER 101 IN THE NASA/AMES RESEARCH CENTER 40X80-FOOT SUBSONIC WIND TUNNEL(0A164)                                                                             |

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|----------------------------|------------------------|------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2511                       | 167,669                | V-01             | 1A300                    | RESULTS OF COLD PLUME TESTS OF THE O.010-SCALE MODEL (75-0TS) IN THE NASA/AMES RESEARCH CENTER 11X11-FOOT WIND TUNNEL (1A300)                                     |
| 25/11                      | 167,670                | V-02             | 1 4 3 0 0                | RESULTS OF COLD PLUME TESTS OF THE O.O10-SCALE MODEL (75-0ES) IN THE NASA/AMES RESEARCH CENTER 11X11-FOOT WIND TUNNEL (1A300)                                     |
| 2541                       | 167,671                | V-03             | 14300                    | RESULTS OF COLD PLUME TESTS OF THE O.010-SCALE MODEL (75-0TS) IN THE NASA/AMES<br>RESEARCH CENTER 11x11-FOOT WIND TUNNEL (1A300)                                  |
| 2512                       | 167,667                | , ,              | 0A308                    | BOUNDRY LAYER TESTS OF THE SPACE SHUTTLE AFRS! MATERIAL IN THE NASA/AMES<br>RESEARCH CENTER 2X2-FOOT TRANSONIC WIND TUNNEL (0A308)                                |
| 25 t3                      | 167,678                |                  | 05313                    | SPACE SHUTTLE AFRSI GAP FIX TEST OS313 IN THE AEDC/USAF 16T TRANSONIC PROPULSION WIND TUNNEL USING MODEL 129-0 INSTALLED IN THE MODEL 96-0 TEST FIXTURE           |
| 9. 2514<br>8. 2514         | 167,687                |                  | F.A301                   | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                  |
| 25:15                      | 167,684                |                  | 053051/5                 | POST-TEST DATA REPORT FOR THE SPACE SHUTTLE FULL-SCALE AFRSI SEQUENCE OF ENVIRONMENTS TEST (0S305-1 TO 5) IN THE NASA/AMES RESEARCH CENTER 11X11-FOOT WIND TUNNEL |
| 25:16                      | 167,688                |                  | 05311 '                  | ** DBCUMENTATION NOT COMPLETE **                                                                                                                                  |
| 25.17                      | 167,689                |                  | 0S314A/B/C               | ** DOCUMENTATION NOT COMPLETE **                                                                                                                                  |

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